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# OFFICE COMMUNICATIONS SYSTEMS AND SERVICES

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**A Directory of Canadian Suppliers of Office Automation Equipment and Services**

Prepared by
Evert Communications Ltd.
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The material contained in this directory was assembled under contract by Evert Communications Ltd. from the companies listed. Although every attempt was made to ensure the accuracy and completeness of the information, neither the Department of Communications nor the contractor assumes any responsibility for the accuracy of the content.

# Introduction

Francis Fox,
Minister of Communications

Our offices today face the challenge of an increasing complexity in doing business, coupled with a slow growth in office productivity. As a result, people do not have the timely information they need to do their jobs effectively. A solution is urgently needed, and the obvious one is the integrated electronic office.

The convergence of computing, communications and office equipment technologies has led to exciting and sophisticated new business systems that are changing the way we work and live. These systems will be applied to the office environment at an accelerated pace over the next decade.

The essence of an office operation is the handling of information, and integrated electronic office systems should enable users to collect, generate, process, store, display, use and transmit information in an easily available and understandable manner. From secretary to senior executive, office automation tools will help us to perform tasks more efficiently, effectively and productively. But there will be intense organizational, human and social impacts, and we must face the challenge of humanizing technology to meet our personal needs. This can best be accomplished through field trials in the working environment, to develop the necessary organizational experience. This is the approach followed by the Office Communications Systems (OCS) Program in sponsoring a finite number of field trial projects in the federal government.

The OCS Program is a federal industrial initiative established in 1981 by the Departments of Communications and Industry, Trade & Commerce/Regional Industrial Expansion. The object of the program is to develop an industrial capacity in Canada to supply the integrated electronic office systems for the rapidly growing markets at home and abroad.

Canada is well positioned to address these opportunities, with its expertise and its strong telecommunications industry. There is a dynamic high-technology industry in Canada, capable of supplying competitive products and services to world-wide markets.

This directory is a vital tool in stimulating industrial participation and user awareness of "made in Canada" products and services. It lists firms throughout Canada that are qualified and ready to provide information, products and services in the office automation field.

We have the products to become self-sufficient and to depend less on imports. This directory will help you make it happen!

**The following companies are listed in this directory:**

Act Computer Services Ltd.
Advanced DataSystems Ltd.
AEL Microtel Ltd.
AES Data Ltée/Ltd.
Ahearn & Soper Inc.
Alphatext Inc. (1981)
Bailey & Rose Ltd.
Basic Software Group Inc.
Bell-Northern Research Ltd.
British Columbia Telephone Company
Cableshare Inc.
Canada Systems Group
Canadian MSP Software Products Ltd.
Canstar Communications
CCG, The Computer Communications Group of Bell Canada
Cegir Inc.
CNCP Telecommunications
Cogebec Information Inc.
Computronic Data Systems
Comterm Inc.
Cybernex Ltd.
Dataline Inc.
David Computers Inc.
DeKoning Software Associates Inc.
Delphax Systems
Delta-Sigma Systems Ltd.
D.E. Systems Ltd.
Develcon Electronics Ltd.
Dictograph Marketing Company
Digital Equipment of Canada Ltd.
Digital Management Group Ltd.
Ducros, Meilleur, Roy & Associates
DY-4 Systems Inc.
Dynakey Corporation
Dynalogic Info-Tech Corporation
Electrohome Ltd. (Electronics Division)
ESE Limited
ExecuNet Corporation
Extel Communications (Canada) Ltd.
Foundation Electronic Instruments Inc.
Gandalf Data Ltd.
Genesys Group Inc.
GTP Office Communications Corporation
Harris Computer Systems
Hickling-Partners Inc.
HiTech Canada Ltd.
Homecom Learning Systems Ltd.
Human Computing Resources Corporation
Hutchinson Smiley Ltd.
IAS Computer Corporation Ltd.
IBM Canada Ltd.
Imata Systems Corporation
Imteks International Inc.
Infomart
Innovative Computer Systems Corp.
Integrated Communications Systems Inc.
Intellitech Canada Ltd.
Intercontinental Data Control Corp. Ltd.
I.P. Sharp Associates Ltd.
ISS Information System Services
The Laurier Group
Logo Computer Systems Inc.
Matrox Electronic Systems Ltd.
Memotec (Division of International Systems Ltd.)
Micom Company
Mini-Peripherals Inc.
Mitel Corporation
MPB Technologies Inc.
MPS - Management Planning Software Group
Multitek Inc.
Nabu Manufacturing Corporation

Nanotec Ltd.
Nelma Data Corporation
New Brunswick Telephone Co. Ltd.
Norpak Ltd.
Northern Technologies Inc.
Northern Telecom Canada Ltd.
Officesmiths Inc.
Office World (Division of Atpro Enterprises Ltd.)
Omni Data Systems Inc.
Philips Information Systems Ltd.
Prior Data Sciences Ltd.
QL Systems Ltd.
Quasar Systems Ltd.
RBW Graphics
Sala Products Inc.
Saskatchewan Telecommunications
Siemens Electric Ltd.
Systemhouse Ltd.
Technetronic Inc.
Telecompute Integrated Systems Inc.
Toronto Word Processing Centre Ltd.
Tran Communications Ltd.
Trigon Systems Group Inc.
Ultracom Consulting Services Ltd.
Versaterm Systems Ltd.
VISIrecord Systems Canada Ltd.
Westinghouse Canada Inc.
Xerox Canada Inc.
Zvook Corporation

## Hardware suppliers

| Company Name | Canadian-owned |
|---|---|
| AES Data Ltée/Ltd. | x |
| Ahearn & Soper Inc. | x |
| Canstar Communications | x |
| Cogebec Information Inc. | x |
| Computronic Data Systems | x |
| Comterm Inc. | x |
| Cybernex Ltd. | x |
| David Computers Inc. | x |
| Delphax Systems | x |
| Delta-Sigma Systems Ltd. | x |
| D.E. Systems Ltd. | x |
| Develcon Electronics Ltd. | x |
| Dictograph Marketing Company | x |
| Digital Equipment of Canada Ltd. | |
| DY-4 Systems Inc. | x |
| Dynalogic Info-Tech Corporation | x |
| Electrohome Ltd., Electronics Division | x |
| ESE Limited | |
| ExecuNet Corporation | x |
| Extel Communications (Canada) Ltd. | |
| Foundation Electronic Instruments Inc. | x |
| Gandalf Data Ltd. | x |
| HiTech Canada Ltd. | x |
| IBM Canada Ltd. | |
| Innovative Computer Systems Corp. | x |
| Intercontinental Data Control Corp. Ltd. | x |
| Matrox Electronic Systems Ltd. | x |
| Memotec, Division of International Systcoms Ltd. | x |
| Micom Company | |
| Mini-Peripherals Inc. | x |
| Mitel Corporation | x |
| MPB Technologies Inc. | x |
| Nabu Manufacturing Corporation | x |
| Nanotec Ltd. | x |
| Nelma Data Corporation | x |
| Norpak Ltd. | x |
| Northern Technologies Inc. | x |
| Northern Telecom Canada Ltd. | x |
| Office World | x |
| Omni Data Systems Inc. | x |
| Philips Information Systems Ltd. | |
| Sala Products Inc. | x |
| Siemens Electric Ltd. | |
| Tran Communications Ltd. | |
| VISIrecord Systems Canada Ltd. | x |
| Westinghouse Canada Inc. | |
| Xerox Canada Inc. | |
| Zvook Corporation | x |

## Software development companies

| Company Name | Canadian-owned |
|---|---|
| Advanced DataSystems Ltd. | x |
| AES Data Ltée/Ltd. | x |
| Bailey & Rose Ltd. | x |
| Basic Software Group Inc. | x |
| Bell-Northern Research Ltd. | x |
| Cableshare Inc. | x |
| Canadian MSP Software Products Ltd. | |
| Cegir Inc. | x |
| Cogebec Information Inc. | x |
| Computronic Data Systems | x |
| Comterm Inc. | x |
| DeKoning Software Associates Inc. | x |
| Delta-Sigma Systems Ltd. | x |
| D.E. Systems Ltd. | x |
| Digital Equipment of Canada Ltd. | |
| Digital Management Group Ltd. | x |
| DY-4 Systems Inc. | x |
| Dynakey Corporation | x |
| Dynalogic Info-Tech Corporation | x |
| ExecuNet Corporation | x |
| Genesys Group Inc. | x |
| GTP Office Communications Corporation | x |
| Harris Computer Systems | x |
| HiTech Canada Ltd. | x |
| Homecom Learning Systems Ltd. | x |
| Human Computing Resources Corporation | x |
| Hutchinson Smiley Ltd. | x |
| IBM Canada Ltd. | |
| Imata Systems Corporation | x |
| Imteks International Inc. | x |
| Innovative Computer Systems Corp. | x |
| Intellitech Canada Ltd. | x |
| Intercontinental Data Control Corp. Ltd. | x |
| I.P. Sharp Associates Ltd. | x |
| ISS Information System Services Ltd. | x |
| Laurier Group (The) | x |
| Logo Computer Systems Inc. | |
| Matrox Electronic Systems Ltd. | x |
| MPB Technologies Inc. | x |
| MPS - Management Planning Software Group | x |
| Multitek Inc. | x |
| Nabu Manufacturing Corporation | x |
| Nelma Data Corporation | x |
| Northern Telecom Canada Ltd. | x |
| Officesmiths Inc. | x |
| Omni Data Systems Inc. | x |
| Prior Data Sciences Ltd. | x |
| Quasar Systems Ltd. | x |
| Sala Products Inc. | x |
| Systemhouse Ltd. | x |
| Technetronic Inc. | x |
| Ultracom Consulting Services Ltd. | x |
| Versaterm Systems Ltd. | x |
| Zvook Corporation | x |

## System integrators

| Company Name | Canadian-owned |
|---|---|
| AEL Microtel Ltd. | x |
| Ahearn & Soper Inc. | x |
| Bell-Northern Research Ltd. | x |
| Cableshare Inc. | x |
| Canstar Communications | x |
| Cogebec Information Inc. | x |
| Delta-Sigma Systems Ltd. | x |
| D.E. Systems Ltd. | x |
| Digital Equipment of Canada Ltd. | |
| Ducros, Meilleur, Roy & Associates | x |
| DY-4 Systems Inc. | x |
| Electrohome Ltd., Electronics Division | x |
| ExecuNet Corporation | x |
| Genesys Group Inc. | x |
| GTP Office Communications Corporation | x |
| Hickling-Partners Inc. | x |
| HiTech Canada Ltd. | x |
| Hutchinson Smiley Ltd. | x |
| IAS Computer Corporation Ltd. | x |
| Imata Systems Corporation | x |
| Imteks International Inc. | x |
| Infomart | x |
| Innovative Computer Systems Corp. | x |
| Integrated Communications Systems Inc. | x |
| Intellitech Canada Ltd. | x |
| Laurier Group (The) | x |
| Micom Company | |
| Nabu Manufacturing Corporation | x |
| Nanotec Ltd. | x |
| Nelma Data Corporation | x |
| Northern Telecom Canada Ltd. | x |
| Systemhouse Ltd. | x |
| Technetronic Inc. | x |
| Telecompute Integrated Systems Inc. | x |
| Trigon Systems Group Inc. | x |
| Versaterm Systems Ltd. | x |

## Service bureaus

| Company Name | Canadian-owned |
|---|---|
| Act Computer Services Ltd. | |
| Alphatext Inc. (1981) | x |
| Canada Systems Group | x |
| Cogebec Information Inc. | x |
| Dataline Inc. | x |
| D.E. Systems Ltd. | x |
| IBM Canada Ltd. | |
| I.P. Sharp Associates Ltd. | x |
| Multitek Inc. | x |
| QL Systems Ltd. | x |
| RBW Graphics | x |
| Toronto Word Processing Centre Ltd. | x |

## Telecommunications carriers

| Company Name | Canadian-owned |
|---|---|
| British Columbia Telephone Company | |
| CCG, the Computer Communications Group of Bell Canada | x |
| CNCP Telecommunications | x |
| New Brunswick Telephone Co. Ltd. | x |
| Saskatchewan Telecommunications | x |

## Software and application packages

(1) Office automation studies
  (a) requirement analysis
  (b) system analysis
  (c) cost-benefit
  (d) project planning/mgmt.
  (e) behavioral methodology
(2) Applications software
  (a) off-the-shelf
  (b) custom
(3) Data base management systems
(4) Application development languages
(5) Electronic filing
(6) Correspondence control
(7) Text editing
(8) Admin. terminal management systems
(9) Word processor interface
(10) Records management
(11) Subscription management

Act Computer Services Ltd.1b 1c 1d 2a 2b 3 7
Advanced DataSystems Ltd. 1a 1b 1c 1d 1e 2a 2b 5 6 7
AES Data Ltée/Ltd. 2a 2b 7
Alphatext Inc. (1981) 2a 2b 3 7 9 10 11
Bailey & Rose Ltd. 1a 1b 1d 2b
Basic Software Group Inc. 2a 4 7
Bell-Northern Research Ltd. 1a 1b 1c 1d 1e
Cableshare Inc. 2a 2b 5 7
Canada Systems Group 2b 3 4 5 7
Canadian MSP Software Products Ltd. 1d 2a 4 7 8
Cegir Inc. 1a 1b 1c 1d 1e 2b 3 4
Cogebec Information Inc. 2a 2b 3
Computronic Data Systems 1a 1b 1d 2b 3 5 7
Comterm Inc. 3 4 5 6 7 8
Dataline Inc. 2a 2b 3 4 5 6 7
David Computers Inc. 1b 1d 2a 2b 3 4 7
DeKoning Software Associates Inc. 1a 1b 1c 1d 1e 2a 2b 3 4 5 6 7 8
Delta-Sigma Systems Ltd. 1a 1b 1c 1d 1e 2a 2b 3 4 5 7 8
D.E. Systems Ltd. 2a 2b 7
Digital Equipment of Canada Ltd. 2a 2b 3 6 7
Digital Management Group Ltd. 1d 2a 2b
Ducros, Meilleur, Roy & Associates 1b 2b
DY-4 Systems Inc. 2a 2b 4 7 8
Dynakey Corporation 1a 1b 1c 1d 2b 3 4 6 8
Dynalogic Info-Tech Corporation 2a 7
ESE Limited 8
ExecuNet Corporation 2a 5 7 8
Genesys Group Inc. 1a 1b 1c 1d 1e 2a 2b 3 4 5 7 8
GTP Office Communications Corp. 1a 1b 1c 1d 1e 2a 2b 5 6 7 8
Harris Computer Systems 1a 1b 1d 2a 2b 6
Hickling-Partners Inc. 1a 1b 1c 1d 1e 2a 2b
HiTech Canada Ltd. 1a 1b 1c 1d 2a 2b 3 5
Homecom Learning Systems Ltd. 2a 2b 3 8
Human Computing Resources Corporation 1a 1b 2a 2b 3 4 7
Hutchinson Smiley Ltd. 1a 1b 1c 1d 1e 2a 2b 3 4 5 6 8
IAS Computer Corporation Ltd. 1a 1b 1d 2a 2b 3 7
IBM Canada Ltd. 2a 3 4 5 6 7 8
Imata Systems Corporation 1a 1b 1c 1d 2a 2b 3
Infomart 1a 2a 2b 3 7
Innovative Computer Systems Corp. 2a 5 7 8
Integrated Communications Systems Inc. 1a 1b 1c 1d 2a 2b 3 4 7
Intellitech Canada Ltd. 3
I.P. Sharp Associates Ltd. 1d 2a 2b 3 4 5 7
ISS Information System Services 1a 1b 1c 1d 1e 2a 2b 3 4 6 7 8
Logo Computer Systems Inc. 2a 2b 4
Micom Company 2a 5 6 7 8
Mini-Peripherals Inc. 6 8
MPS - Management Planning Software Group 1a 1b 1c 1d 2a 2b 3 5 7
Multitek Inc. 2b 3 4 5 6 7

Nabu Manufacturing Corp. 1a 1b 1c 1d 2a 2b 3 4 5 7

Nelma Data Corporation 2a 2b 7

New Brunswick Telephone Co. Ltd. 1b 1c 2a 2b 3 4 5 6 7 8

Northern Telecom Canada Ltd. 1a 1b 1c 1d 1e

Officesmiths Inc. 1a 1b 1c 1d 3 4 5 6

Omni Data Systems Inc. 2b

Philips Information Systems Ltd. 2a 2b 5 6 7

Prior Data Sciences Ltd. 1a 1b 1c 1d 1e 2b 3 4 5 6 7 8

QL Systems Ltd. 2b 3 6 7

Quasar Systems Ltd. 1a 1b 1c 1d 1e 2a 2b 3 4 7 8

RBW Graphics 2b 7

Saskatchewan Telecommunications 1a 2a

Systemhouse Ltd. 1a 1b 1c 1d 1e 2a 2b 3 4 5 6 7 8

Technetronic Inc. 1a 1b 1c 1d 2b 3 4 5

Telecompute Integrated Systems Inc. 2a 2b 3 4 5 7

Ultracom Consulting Services Ltd. 1a 1b 1c 1d 2b

Versaterm Systems Ltd. 2a 2b 3 4 5 6 7

Xerox Canada Inc. 1a 1b 1c 2a 3 4 5 7

## Computers and peripherals

(1) Large scale
(2) Medium scale
(3) Microcomputer
(4) Minicomputer
(5) Small business systems
(6) Personal computers
(7) Educational computers
(8) Programmable calculators
(9) Data collection systems
(10) POS (point-of-sale) terminals
(11) Digitizers
(12) Front-end processors
(13) Graphic displays
  (a) CRT based
  (b) printing terminals
  (c) graphic tablets
(14) MICR equipment
(15) OCR equipment
(16) Optical mark readers
(17) Voice recognition devices
(18) Voice synthesizers
(19) Printers
  (a) band (b) electrostatic
  (c) impact (d) ink jet
(20) Electronic keyboards
(21) "Soft" keyboards
(22) Hand-held keyboards
(23) CRT terminals
  (a) passive (b) intelligent
  (c) printing
  (d) high-speed printing
  (e) portable
  (f) executive workstation
  (g) multifunctional
  (h) Telidon compatible
(24) Teletypewriters
(25) Floppy disk drives
(26) Rigid disk transports
(27) Tape transports
(28) Voice recognition equipment
(29) Forms feeder
(30) Forms handling equipment
(31) Computer print-out cameras
(32) Touch screen terminals
(33) Cursor movement devices
  (a) joy-stick (b) mouse
(34) Video disk data storage devices

Act Computer Services Ltd. 1 9 12 13a 13b 19c 19d 23a 23b 23c 23d 23e 23f 23g 23h
Advanced DataSystems Ltd. 3 4 5 23a
AEL Microtel Ltd. 23h
Cableshare Inc. 9 12 13a 13c 15
Canada Systems Group 1 2 3 4
CCG, The Computer Communications Group 23f 23g
CNCP Telecommunications 2 3 4 9 12 13a 13b 19b 19c 20 21 23b 23c 23g 24 25 26 27
Cogebec Information Inc. 2 3 4 5 6 13a 13b 19a 19c 20 23a 23b 23c 23d 25 26 27
Computronic Data Systems 3 5 10 12 13b 19c 20 21 23b 32
Comterm Inc. 3 5 9 13a 19c 20 23a 23b 23c 23f 23g 23h 25 26 32 33b
Cybernex Ltd. 11 23b 32
David Computers Inc. 3 5 7 13a 13b 19c 19d 23g 23h 25 26 27
Delta-Sigma Systems Ltd. 3 4 5 6 7 9 12 17 18 19c 24 25 26 27 28 29
D.E. Systems Ltd. 3 4 5 19c 23a
Digital Equipment of Canada Ltd. 2 3 4 5 7 19c 23b 23c 23g 26 27 30
DY-4 Systems Inc. 3 6 7 12 13a 23b 25 26 27 32 33b
Dynakey Corporation 9
Dynalogic Info-Tech Corp. 3 5 6 7 23b 23e 23f 23g 23h 25 26
Electrohome Ltd. 13a 13c 22 23a 23b 23f 32
ESE Limited 11 23b
ExecuNet Corporation 3 5 6 8 19c
Extel Communications (Canada) Ltd. 13a 19c 23c
GTP Office Communications Corp. 3 5 6 7 9 15 23a 23b 23c 23d 23e 23f 23g 23h 24
Harris Computer Systems 2 5
HiTech Canada Ltd. 15
IAS Computer Corporation Ltd. 4 5 23c 23d 23f 23g
IBM Canada Ltd. 1 2 4 5 6 9 10 12 13a 13b 14 15 16 19a 19c 19d 20 22 23b 23c 23d 23e 23f 23g 25 26 29 30 32
Innovative Computer Systems Corp. 3 5 6 7 10 13a 13b 19a 19c 25 34
Integrated Communications Systems Inc. 3 4 5 9 10 12 13a 13b 15 19a 19c 22 23a 23b 23c 23e 23f 23g 26 27 29 32
Intellitech Canada Ltd. 5 7
Intercontinental Data Control Corp. Ltd. 19c 19d 23b 23f 24 25
ISS Information System Services 1 2 3 4 5 10
Matrox Electronic Systems Ltd. 3 5 13a 23b 25
Micom Company 29 30
Mini-Peripherals Inc. 3 4 5 6 7 12 13a 18 25
Mitel Corporation 23f
MPB Technologies Inc. 5 11 13a 13b 13c 23b 23c 23f 23g 23h 25 31
MPS - Management Planning Software Group 23a 23b 23f 23h
Multitek Inc. 2 13a 13b 13c 19a 19c 23a 23b 24 26 27 30
Nabu Manufacturing Corporation 3 4 5 6 7 19a 19c 23a 23b 23f 23g 25 26
Nanotec Ltd. 3 4 23b 23g
Nelma Data Corporation 3 5 6 19c 23b 23g 23h
New Brunswick Telephone Co. Ltd. 2 3 4 5 6 12 13a 15 19a 19c 20 23a 23b 23c 23d 23e 23f 23g 23h 24 25 26 27 29
Norpak Ltd. 2 3 4 6 7 11 13a 13c 18 21 23b 23f 23g 23h 25 31 32 33a 34
Northern Technologies Inc. 6 13a 13b 19c 23a 23b 23c 23e 34
Northern Telecom Canada Ltd. 2 3 4 5 9 12 13a 13b 23b 23f 23g 23h
Philips Information Systems Ltd. 3 4 5 6 19c 23b 23f 23g 25 29 34
Prior Data Sciences Ltd. 1 2 3 4 7 12 13a 13b 13c 23a 23b 23c 23d 23f 23g
QL Systems Ltd. 19b 23a 23d
Quasar Systems Ltd. 1 2 3 4 5 9
Sala Products Inc. 3 5 6 7 19c 23a 23g 25
Saskatchewan Telecommunications 5 23a 23b 23c 23d 23e 24
Siemens Electric Ltd. 19c 19d 20 21 24 25 29
Systemhouse Ltd. 4 5
Technetronic Inc. 3 4 11 12 13a 13b 13c 19b 19c 19d 21 23a 23b 23g 25 26 32 33b
Telecompute Integrated Systems Inc. 3 5 6
Toronto Word Processing Centre Ltd. 15
Trigon Systems Group Inc. 5 6 7
Ultracom Consulting Services Ltd. 1 2 3 4 6
Westinghouse Canada Inc. 23b 23g
Xerox Canada Inc. 3 5 6 7 12 13a 13b 19b 19c 20 23b 23c 23d 23e 23f 23g 25 26 29 33b
Zvook Corporation 7 18

## Services

(1) Networks
  (a) voice, data, message
  (b) internal, private
  (c) public, point-to-point, switched
  (d) special configuration
(2) Local area networks
  (a) baseband
  (b) broadband
(3) Teleconferencing
  (a) voice
  (b) computer
  (c) full video
  (d) partial video
(4) Voice messaging
(5) Electronic mail
  (a) private (b) public
(6) Information storage and retrieval
(7) Text query
(8) Videotex services
(9) Document creation and editing
(10) Time management and scheduling

Act Computer Services Ltd. 1b 1c 1d 4 5b 9 10
AEL Microtel Ltd. 1a 1b 1c 8
Alphatext Inc. (1981) 1b 5b 6 7 9
Bell-Northern Research Ltd. 1d
British Columbia Telephone Company 1a 1c 2a 3a 3c 4 5a 8
Cableshare Inc. 5b 6 7 8 9 10
Canada Systems Group 1a 1b 1c 6 7 8
Canstar Communications 1d
CCG, The Computer Communications Group 1a 1b 1c 1d 3c 3d 5a 5b
CNCP Telecommunications 1a 1b 1c 1d 5a 5b
Cogebec Information Inc. 1b 6
Computronic Data Systems 9
Comterm Inc. 1b 2a 2b 3c 5a 5b 6 7 8 9 10
Dataline Inc. 1a 1b 4 5b 6 9 10
Develcon Electronics Ltd. 1a 1b 1c
DY-4 Systems Inc. 1b 1d 2b 3b
Dynakey Corporation 1d 9 10
Foundation Electronic Instruments Inc. 1a 1b 1c 2a
GTP Office Communications Corp. 4 6 9 10
IAS Computer Corporation Ltd. 5b 6
IBM Canada Ltd. 1a 1c
Imata Systems Corporation 6 8 9
Infomart 8
Innovative Computer Systems Corp. 3b 3c 5a 9 10
Integrated Communications Systems Inc. 1b 1d 3a 3b 3c 4 5b 6
Intellitech Canada Ltd. 1a 1b 1c 1d 2a 2b 3a 3b 3c 3d 6 7 8
Intercontinental Data Control Corp. Ltd. 1a 3a 3d 9
I.P. Sharp Associates Ltd. 1b 5b 6 10
ISS Information System Services 1d 5a 5b 6 10
Mitel Corporation 1a 1b 1c 1d 2a 3a 4 5a 5b
MPS - Management Planning Software Group 1b 5b 6 7 10
Multitek Inc. 5a 5b 6
Nabu Manufacturing Corp. 5b 6 7 8 9
New Brunswick Telephone Co. Ltd. 1a 1b 1c 1d 3a 3b 3c 3e 4 5a 5b 6 8 9
Northern Telecom Canada Ltd. 1a 1b 1c 3a 3b 8
Philips Information Systems Ltd. 1b 1c 2a 5b 6 9 10
QL Systems Ltd. 5a 5b 7 9
RBW Graphics 6 7 8 9
Saskatchewan Telecommunications 1a 1b 1c 1d 2a 2b 3a 3b 3c 3d 4 5a 5b 8
Systemhouse Ltd. 8
Technetronic Inc. 1a 1b 1c 1d 5a 5b 6 9 10
Telecompute Integrated Systems Inc. 1c
Toronto Word Processing Centre Ltd. 9
Trigon Systems Group Inc. 1a 1b 1c 1d 2a 2b 3a 3b 3c 3d 4 5a 5b 6 7 8 9 10
Versaterm Systems Ltd. 1c 1d 5a 5b 6
Xerox Canada Inc. 1a 1b 1d 2a 5b 6 7 9

## Word processors

(1) Electronic typewriters
(2) "Thin window" display
(3) Standalone
(4) Communicating
(5) Multi-terminal
  (a) shared-logic systems
  (b) shared-resource systems
(6) WP/DP office systems
  (a) mainframe-based systems
  (b) personal computer systems
(7) CRTs
(8) Printers

Act Computer Services Ltd. 3 4 5a 5b 6a
Advanced DataSystems Ltd. 3 4 5a 5b
AES Data Ltée/Ltd. 1 3 4 5a
Ahearn & Soper Inc. 1 4 5a 5b 6a 6b 7 8
Cableshare Inc. 4 5b
CNCP Telecommunications 4 5a 5b
Cogebec Information Inc. 6a 6b
Computronic Data Systems 1 3
Comterm Inc. 4 5b 6b
David Computers Inc. 5a 5b
Delta-Sigma Systems Ltd. 3 4 6b
Digital Equipment of Canada Ltd. 3
DY-4 Systems Inc. 3 4 5a 5b 6b
Dynakey Corporation 6a 6b
Dynalogic Info-Tech Corporation 3 6b
ExecuNet Corporation 3 4 5b 6b
GTP Office Communications Corp. 4 5a
Hutchinson Smiley Ltd. 4 5a 5b 6a 6b
IAS Computer Corporation Ltd. 3 5b
IBM Canada Ltd. 1 3 4 5a 5b 6a 6b
Imata Systems Corporation 6b
Innovative Computer Systems Corp. 3 4 5a 5b 6b
Integrated Communications Systems Inc. 3 4 5a 5b 6a
Micom Company 2 3 4 5a 5b 6a
Mini-Peripherals Inc. 1
MPS - Management Planning Software Group 6a
Multitek Inc. 6a
Nabu Manufacturing Corporation 3 5b 6b
Nanotec Ltd. 3 4 5a 5b 6b
Nelma Data Corporation 3 4 5b
New Brunswick Telephone Co. Ltd. 1 2 3 4 5a 5b 6b
Northern Telecom Canada Ltd. 4 5a 5b
Philips Information Systems Ltd. 2 3 4 5a 5b 6b
Prior Data Sciences Ltd. 4
QL Systems Ltd. 4 5a 6a
RBW Graphics 6a
Sala Products Inc. 1 4 5a 5b 6b
Saskatchewan Telecommunications 3 4
Siemens Electric Ltd. 1 4
Telecompute Integrated Systems Inc. 3 6b
Toronto Word Processing Centre Ltd. 1 2 3 4 5a
Trigon Systems Group Inc. 4 5a 5b 6a 6b
Xerox Canada Inc. 1 2 3 4 5b 6b

## Communications equipment

(1) Acoustic couplers
(2) Controllers
(3) Interfaces
(4) Converters
(5) Multiplexers
(6) Modems
  (a) limited distance
  (b) network
(7) PBXs and PABXs
(8) Terminal equipment
  (a) fixed
  (b) mobile
(9) Telemetry systems
(10) Radiotelephones
(11) Private microwave systems
(12) Facsimile machines
(13) Data encryption equipment
(14) Sensors

AEL Microtel Ltd. 6a 7 11
AES Data Ltée/Ltd. 1 2 3 6b
British Columbia Telephone Company 6b 7 8a 8b 9 10
Cableshare Inc. 5 13
CNCP Telecommunications 2 3 4 5 6a 6b 8a 8b 9 11 12
Comterm Inc. 2 5 8a
David Computers Inc. 1 2 3 5 6a 6b 7
Delta-Sigma Systems Ltd. 2 3 4
Develcon Electronics Ltd. 6a 6b
Dictograph Marketing Company 8a
DY-4 Systems Inc. 1 3 6b
Electrohome Ltd. 8a
ESE Limited 2 4 5 6a 6b
Extel Communications (Canada) Ltd. 13
Foundation Electronic Instruments Inc. 5 6a 6b
Gandalf Data Ltd. 1 3 4 5 6a 6b 8a 8b
GTP Office Communications Corp. 1 3 5 6a 6b
HiTech Canada Ltd. 2 3
IBM Canada Ltd. 2 3 5 6a 6b 13 14
Innovative Computer Systems Corp. 1 2 3
Integrated Communications Systems Inc. 7 8a 8b 12 13
Intellitech Canada Ltd. 6a 6b 8a 8b 13
Intercontinental Data Control Corp. Ltd. 3 5
Memotec 3 4 5 13
Mini-Peripherals Inc. 2 3
Mitel Corporation 4 5 7
MPS - Management Planning Software Group 6a 6b 8a
Multitek Inc. 1 5 6a
Nabu Manufacturing Corporation 3 4
Nanotec Ltd. 3 4 8a
New Brunswick Telephone Co. Ltd. 1 2 3 4 5 6a 6b 7 8a 8b 9 10 11 14
Norpak Ltd. 3
Northern Telecom Canada Ltd. 7 8a 11 13
Northern Technologies Inc. 1 3 4 6b
Omni Data Systems Inc. 1 3 5 6a 6b
Philips Information Systems Ltd. 3 8a
Sala Products Inc. 5
Saskatchewan Telecommunications 5 6a 6b 7 8a 8b 9 10 11 12
Siemens Electric Ltd. 7 10 12 13
Telecompute Integrated Systems Inc. 5
Toronto Word Processing Centre Ltd. 12
Tran Communications Ltd. 4 5 6a
Westinghouse Canada Inc. 2 4
Xerox Canada Inc. 6b 12

## Reprographics

(1) Copier machines
(2) Copy control systems
(3) Laser printers
(4) Other duplicating equipment
(5) Phototypesetters
(6) Plotter

Alphatext Inc. (1981) 3 5
Canada Systems Group 3
Canadian MSP Software Products Ltd. 6
Computronic Data Systems 5
Delphax Systems 5
DY-4 Systems Inc. 3
IBM Canada Ltd. 1 3 4
Imteks International Inc. 3 5
RBW Graphics 5
Sala Products Inc. 5
Xerox Canada Inc. 1 2 3 4 6

## Other office products

(1) Accounting machines
(2) Computer-compatible addressing machines
(3) Micrographics
(4) Dictation equipment
    (a) desktop (b) centralized
(5) Dictation transcription equipment
(6) Mail room equipment
(7) Office automation furniture

Cableshare Inc. 1
Canada Systems Group 3
Computronic Data Systems 2
D.E. Systems Ltd. 7
Dynalogic Info-Tech Corporation 1
Harris Computer Systems 1
IBM Canada Ltd. 4a 4b 5 7
Innovative Computer Systems Corp. 2 4a 7
Philips Information Systems Ltd. 1 4a 4b 5 7
Telecompute Integrated Systems Inc. 1
VISIrecord Systems Canada Ltd. 7
Xerox Canada Inc. 2 3

# Act Computer Services Ltd.

**Act Computer Services Ltd.**

11735 - 170 Street
Edmonton, Alberta
T5M 3W7
(403) 451-5555
Telex 037-2297

Full service information processing centre running a variety of packaged and custom developed applications software for both industry and government. Specializing in developing on-line systems, the company has seen dramatic growth over the past four years and has successfully expanded its marketing efforts into both the United States and South America.

*Principal products and services*

— on-line integrated dealer management
— facilities management
— consulting
— complete set of integrated financials
— time-sharing

*Related products and services*

— custom developed software
— office automation
— project management and control
— APL-ADRS
— DCF

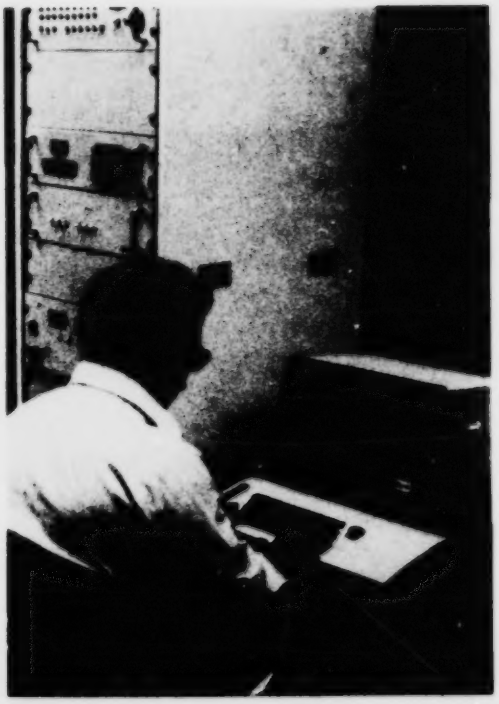
Personnel: 127
Annual sales: $7.5 million in 1981
Senior executive:
John B. Timmons
President and general manager

*For further information*

Robert F. Day
Vice-president, marketing
or
Mike Ostafichuk
Sales manager

*Affiliated companies*

Advanced Computer Techniques Corporation
New York, Washington, Phoenix



Advanced DataSystems Ltd.

**Advanced DataSystems Ltd.**

3-3012 Louise Street
Saskatoon, Saskatchewan
S7J 3L8
(306) 373-8063

Advanced DataSystems was organized to develop and market business system software and related computer hardware. ADS specializes in software suited for small business accounting, planning and communication. ADS also exports its software products outside of Canada.

*Principal products and services*

— business systems
— software for small business
— custom software

*Related products and services*

— software and hardware support

Personnel: 20
Annual sales: $2 million in 1981
Senior executive:
Dallas Howe
President

*For further information*

Paul Riome
Business systems manager
or
Adam Keller
Director of marketing

*Branch offices*

908 Oxford Tower
10235 - 101 Street
Edmonton, Alberta

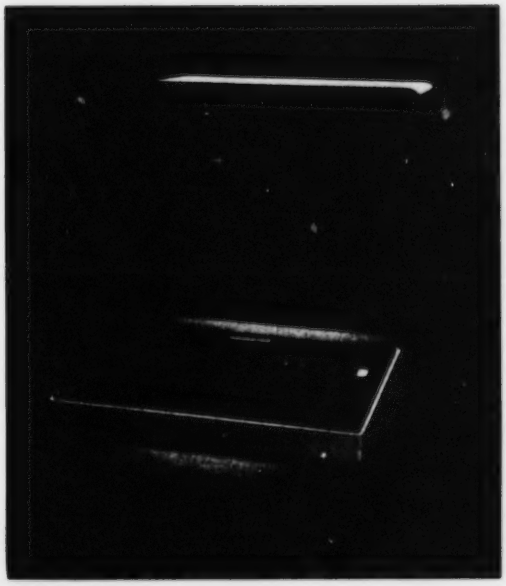
*Affiliated companies*

Health Systems Division
BDM Information Systems Ltd.
3-3012 Louise Street
Saskatoon, Saskatchewan

**AEL Microtel Ltd.**

108-4664 Lougheed Highway
Burnaby, British Columbia
V5C 5T5
(604) 294-3274
TWX 610-953-4921

AEL Microtel Ltd. came into being in October 1979 through the merger of two successful telecommunications companies, GTE Automatic Electric (Canada) Ltd. and GTE Lenkurt Electric (Canada) Ltd. They were united as a wholly-owned subsidiary of British Columbia Telephone Co. The second largest telecommunications manufacturer in Canada, Microtel designs, develops, manufactures and markets a complete range of telecommunications switching and transmission systems, subscriber equipment and Telidon videotex products. The company has factories in each of Canada's four western provinces and one in Ontario, plus a manufacturing subsidiary, Viscount Industries, in Vancouver, B.C. Microtel represents more than 100 manufacturers of associated products in Canada. Microtel sub-contracts its extensive electronic manufacturing capabilities to other companies and operates an internationally known training school.



*Principal products and services*

— digital and analog multiplex equipment
— microwave radio
— supervisory and control systems
— digital toll switching systems
— digital and analog central office switching systems
— digital PABXs
— traffic service position systems (TSPS)

*Related products and services*

— custom manufacturing
— telephony related training

Personnel: 3,400
Annual sales: $190 million in 1981
Senior executive:
T. F. Heenan
President and chief executive officer

*For further information*

E.V. Hird
Executive vice-president, marketing
or
J.C. Madden
President, Microtel Pacific Research

*Branch offices*

St. John's, Montreal, Regina, Burnaby, Dartmouth, Toronto, Edmonton, Rimouski, Winnipeg, Calgary

*Affiliated companies*

B.C. Tel (parent company)
Microtel Pacific Research (wholly owned subsidiary)
Viscount Industries Ltd. (wholly owned subsidiary)

# AES Data Ltée/Ltd.

**Manufactures a complete line of standalone and shared logic word processor systems**

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**AES Data Ltée/Ltd.**

100 Alexis Nihon Blvd
Montreal, Quebec
H4M 2P2
(514) 744-6711
Telex 05-826602

AES was established in 1974 and developed into a multi-million dollar, international supplier of word processor systems. Until 1978, the company's majority shareholder was Innocan Investments Ltd. In July 1978, the Canada Development Corporation, purchased a 78 per cent share of the company. The remaining shares are held by Lanier Business Products Inc., the US distributor of AES equipment. Sales are conducted through distributors worldwide.

*Principal products and services*

— CRT-based word processing equipment and peripherals

*Related products and services*

— education and user training
— product service

Personnel: 2,400
Annual sales: $171 million in 1981
Senior executive:
John Leng
President and chief executive officer

*For further information*

Denis J. Dorval
Vice-president, corporate marketing

*Branch offices*

Canadian and international distributors in over 50 countries

**Ahearn & Soper Inc.**

100 Woodbine Downs Blvd.
Rexdale, Ontario
M9W 5S6
(416) 675-3999
Telex 06-965770

Ahearn & Soper has developed a strong manufacturing base to complement its distribution and sale of communications related peripheral products. In the mid-70s, the firm designed the first of its Multiwriter series of letter-quality printing terminals. The latest development is the Multiwriter-IV, an intelligent, bi-directional printer. The company recently moved to a new 30,000 sq. ft. facility to handle planned penetration into offshore markets as well as support Canadian office automation requirements.

*Principal products and services*

— input/output devices
— letter quality hardcopy printers
— storage devices
— graphics terminals
— terminals, printer, desktop, CRTs

*Related products and services*

— sheet and envelope feeders
— all commercial market word processing printers

Personnel: 114
Annual sales: not disclosed
Senior executive:
J.H. Paul
President

*For further information*

P. Fedak
Vice-president, marketing
or
K. Rashid
Controller

*Branch offices*

Montreal, Ottawa, Waterloo, Calgary, Edmonton, Vancouver

# Alphatext Inc. (1981)

**Alphatext Inc. (1981)**

240 Catherine Street
Ottawa, Ontario
K2P 2G8
(613) 238-5333

Alphatext was formed in 1969 to provide on-line text management services comprising data capture and maintenance, storage, retrieval and photocomposition output. The network uses MITS-1 text editor, IBM mainframes, Xerox 9700 laser printers and APS-5 phototypesetting equipment driven from a selection of composition programming languages including VERSACOMP. A word processor interface is to be introduced in 1982 which will allow popular word processor brands to communicate with the mainframe. In 1981 Alphatext was purchased by Shell Canada and in turn, Shell Canada sold Alphatext to Ronald's Federated of Montreal in March, 1982.

*Principal products and services*

— laser printing
— photocomposition
— records management system
— text processing services
— text management systems

*Related products and services*

— word processor interface
— MITS-1 - on-line text editor
— TEAMS - text management and retrieval system

Personnel: 113
Annual sales: $4.9 million in 1981
Senior executive:
J.W. Hunter
Vice-president

*For further information*

D.H. Joyce
Product manager

*Branch offices:*

Montreal, Toronto, Detroit

**Bailey & Rose Ltd.**

29th floor, Tower C, Place de Ville
330 Sparks Street
Ottawa, Ontario
K1R 7R9
(613) 238-5312

Bailey & Rose Ltd. is a Canadian-owned company providing information management consulting and development services to private industry, government and educational institutions. Incorporated in 1975, the company is privately-owned and financed by Canadians. Through its wholly-owned educational and training subsidiary, the company provides expertise and services emphasizing the use of computer technology in education and training.

*Principal products and services*

— information consulting
— systems development
— technical writing and documentation
— education/training
— personnel recruitment

*Related products and services*

— computer-assisted learning courseware development

Personnel: 250
Annual sales: $7 million in 1981
Senior executive:
Kenneth F. Tongue
Senior partner, president

*For further information*

Lenore Edmond
Partner, vice-president
or
Ken Harrap
Partner, vice-president

*Branch offices*

Toronto, Montreal, Edmonton, Calgary, Vancouver, Victoria, San Francisco

*Affiliated companies*

PedaComp
The Computer People

Basic Software Group Inc.

**Basic Software Group Inc.**

205-1682 W. 7th Avenue
Vancouver, British Columbia
V6J 4S6
(604) 733-2343

Basic Software Group Inc. was started in 1979 to develop business software for microcomputers. The company has parallel product lines comprising off-the-shelf application packages and software development tools. Over 80 per cent of the company's sales are derived from US and overseas markets and the company's programs are well known in the US microcomputer industry.

*Principal products and services*

— off-the-shelf business software for accounting, word processing, data management
— application development system for software houses

Personnel: 15
Annual sales: not disclosed
Senior executive:
E.M. Comfoltey
President

*For further information*

Norm Francis
Vice-president
or
Keith Wales
Vice-president

# Bell-Northern Research Ltd.

**Bell-Northern Research Ltd.**

P.O. Box 3511, Stn. "C"
Ottawa, Ontario
K1Y 4H7
(613) 596-2304
Telex 053-3175
TWX 610-562-1914

Bell-Northern Research was formed in 1971 to undertake research and development for its parent companies, Northern Telecom and Bell Canada, on telecommunications and related products and networks. BNR also provides R&D services to outside organizations on a contract basis.

*Principal products and services*

— network planning services including voice, data and combined voice and data networks
— office automation planning services

Personnel: 3,000
Annual sales: $170 million in 1981
Senior executive:
J. Roth
Executive vice-president

*For further information*

R.F. Fortune
Director of marketing

*Branch offices*

BNR Toronto
BNR Edmonton

*Affiliated companies*

Northern Telecom Limited
Bell Canada

# British Columbia Telephone Company

**Telecommunications carrier and supplier of integrated office systems**

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**British Columbia Telephone Company**

3777 Kingsway
Burnaby, British Columbia
V5H 3Z7
(604) 432-2151
TWX 610-922-6044

B.C. Tel and its subsidiaries operate Canada's second largest telephone system and provide a full range of other telecommunications services to most of British Columbia's residents. The company's computer communications group provides data and computer terminal equipment and expertise. B.C. Tel is a member of the TransCanada Telephone System.

*Principal products and services*

— telecommunications network
— microprocessor-based switchboard system
— manufacturing and R&D of Telidon systems
— computer terminals and modems
— specialized data networks

Personnel: 18,500 (including subsidiaries)
Annual revenues: $1,100 million in 1981 (including subsidiaries)

Senior executive:
Gordon F. MacFarlane
Chairman and chief executive officer

*For further information*

Robert Johnston
(604) 432-2698

*Subsidiaries*

AEL Microtel Limited
Microtel Pacific Research Limited

**Cableshare Inc.**

20 Enterprise Drive
London, Ontario
N6A 4L6
(519) 686-2900
Telex 064-5693

Cableshare Inc. develops, markets and implements: computer information systems, services, software products and data communication network products. The company also markets complete business computer systems including both computer hardware and software. Through its research activities, the company has developed new and innovative products for both data communication networks and Telidon business systems. Its products are marketed directly in Canada and the United States and through distributors in overseas countries.

*Principal products and services*

— inter-office communications including word processing, electronic mail, electronic filing and optical character recognition
— X.25 communications
— Telidon presentation system

*Related products and services*

— facilities management
— business systems including Tolas II and cable TV subscriber accounting

Personnel: 107
Annual sales: $6.6 million in 1981
Senior executive:
T. H. Pocock
President and chief executive officer

*For further information*

Barry G. Walker
Director of marketing

*Branch offices*

Calgary, Toronto, Philadelphia, Los Angeles, Atlanta

*Affiliated companies*

Videopress
Faxtel

# Canada Systems Group

**Canada Systems Group**

2599 Speakman Drive
Mississauga, Ontario
L5K 1B1
(416) 822-5200

Canada Systems Group is the largest computer services company in Canada. CSG is widely diversified and provides a wide range of services and products ranging from IBM-based computer services to the development of turnkey minicomputer systems. CSG communications networks currently support over 1,500 terminals across Canada and the United States; all major communications protocols including SNA are supported by CSG.

*Principal products and services*

— IBM-based computer services
— videotex services
— special office automation systems

*Related products and services*

— network services
— IBM-based Telidon support
— SNA support

Personnel: 1,500
Annual sales: $100 million in 1981
Senior executive:
William B. Boggs
President and chief executive officer

For further information

D.E. Smith
Vice-president, marketing
(613) 563-4444

*Branch offices*

Montreal, Ottawa, Toronto, Don Mills, Mississauga, Winnipeg, Calgary, Edmonton, Vancouver, Washington, San Francisco and Los Angeles

*Affiliated companies*

CSG Corporation Inc.
1101 Connecticut Ave, N.W. Suite 807
Washington, D.C. 20036
(202) 466-5663

**Canadian MSP Software Products Ltd.**

120 Norfinch Drive
Downsview, Ontario
M3N 1X3
(416) 663-8640

Part of a multinational software manufacturer, MSP Canada sells computer software for large scale IBM or IBM like hardware. Products include data dictionary, project reporting, program testing, data base design, text management and source code generation software.

*Principal products and services*

| | |
|---|---|
| — DATAMANAGER | - data dictionary software |
| — DESIGNMANAGER | - data base design |
| — PROJECTMANAGER | - project reporting system |
| — SOURCEMANAGER | - source code generator |
| — TESTMANAGER | - program testing tool |
| — TEXTMANAGER | - text management system |

Personnel: 120 (worldwide)
Annual sales: $10 million in 1981
Senior executive:
Stephen Ginsberg
President

*Affiliated companies*

MSP INC., Lexington Mass.
MSP Ltd., London England

Canstar Communications

**Canstar Communications**

1240 Ellesmere Road
Scarborough, Ontario
M1P 2X4
(416) 293-9722
Telex 065-25403

Canstar Communications is a division of Canada Wire and Cable Limited, established in 1977 to develop applications for fibre optic technology. Marketing and systems engineering is located in Toronto, and R&D and manufacturing in Winnipeg. Sales are direct in North America and through distributors worldwide.

*Principal products and services*

— fibre optic cables
— fibre optic couplers - taps and stars
— optical line terminating equipment
— systems engineering
— local area networks

*Related products and services*

— custom network and systems design
— custom optical interface equipment

Personnel: 70
Annual sales: not disclosed
Senior executive:
D.C. Mitchell
General manager

*For further information*

J.C. Wismath
Marketing manager
or
R.R. Doyle
Manager market development

*Affiliated companies*

Noranda

# CCG, The Computer Communications Group of Bell Canada

**CCG, The Computer Communications Group of Bell Canada**

160 Elgin Street
Ottawa, Ontario
K1G 3J4
(613) 567-3781
TWX 610 562 1940

CCG was formed in 1972 as the specialist data communications arm of the TransCanada Telephone System. Committed to serving its customers through the development and provision of data communications and messaging services coast-to-coast in Canada and around the world, CCG plans, designs, implements and maintains telecommunications systems. Data transmission networks such as Datapac and Dataroute have made CCG and Canada world leaders in telecommunications.

*Principal products and services*

— Datapac
— Datalink
— Envoy 100
— Teletex
— Dataroute
— Dataforce
— Displayphone
— iNet
— ISBN (Integrated Satellite Business Network)

*Related products and services*

— Datapac International
— Dataroute International
— Dataforce equipment and system maintenance

Personnel: 2,000
Annual sales: not separated from total revenues
Senior executive:
John H. Farrell
Director of computer communications

*For further information*

Linda C. Gervais
Assistant director, public relations and advertising
(613) 567-3724

*Branch offices*

Ottawa, Montreal, Toronto, Hamilton, Quebec City and London

*Affiliated companies*

Member companies of TCTS: Alberta Government Telephones, British Columbia Telephone, Bell Canada, Manitoba Telephone System, Maritime Telephone & Tel, Island Telephone, New Brunswick Telephone Co., Newfoundland Telephone, Saskatchewan Telephone Telecommunications.

# Cegir Inc.

**Cegir Inc.**

2 Complexe Desjardins, suite 2301
P.O. Box 160
Montreal, Quebec
H5B 1B3
(514) 288-6942
Telex 055-60249

In office communication projects, Cegir Inc. uses the skills of a varied group of professionals. Industrial engineers perform time and motion analyses. EDP specialists prepare specifications and design hardware and software configurations. Communications experts assess the flow of information and the interchanges between people, software and DBMS specialists build application software and specialized word processing data bases. Industrial psychologists and sociologists evaluate the impact of automation on people and prepare implementation programs. Finally secretarial personnel benchmark and test various equipment.

*Principal products and services*

— EDP/office automation consulting services
— turnkey implementation

Personnel: 100
Annual sales: $6.5 million in 1980
Senior executive:
Marcel Desjardins
President

*For further information*

Andre R. Brais
Senior partner

*Branch offices*

Ottawa, Geneva, Maryland, West Africa, Philippines

**CNCP Telecommunications**

3300 Bloor Street West, West Tower
Toronto, Ontario
M8X 2W9
(416) 232-6365
Telex 06-969695

CNCP is a national telecommunications common carrier which operates a coast-to-coast microwave network and related facilities to provide a wide range of telecommunications services to business, government and industry in Canada. It also provides telegram, Telepost and other forms of electronic public message service, some in conjunction with Canada Post.

*Principal products and services*

| | |
|---|---|
| — Infotex | - Canadian teletext service for communicating word processors |
| — Telex | - switched teleprinter network |
| — Telenet | - computer message switching |
| — Infodat | - dedicated digital data circuits |
| — Infoswitch | - circuit and packet switching network |
| — Broadband | - analog private line voice and data |

*Related products and services*

| | |
|---|---|
| — Infomode | - range of terminals leased for use on data and information services |
| — Telemode | - range of terminals leased for use on Telex network |

Personnel: 4,200
Annual sales: $270 million in 1981
Senior executive:
J.G. Sutherland
President and chief executive officer

*For further information*

John Gibson
Director, public affairs

*Branch offices*

Sales offices in: Halifax, Moncton, Montreal, Quebec, Ottawa, Toronto, London, Hamilton, Kitchener, Sudbury, Windsor, Thunder Bay, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver, Kamloops, Penticton, Prince George and Victoria

*Affiliated companies*

Owned jointly by Canadian National and Canadian Pacific Limited

## Cogebec Information Inc.

**Cogebec Information Inc.**

4, Place du Commerce, Suite 450
Ile des Soeurs
Montreal, Quebec
H3E 1J4
(514) 768-1196

Cogebec Inc. is a computer systems, services and consulting firm. Application software developed by Cogebec is run on computers owned by our clients, on minicomputers sold to our clients and on in-house computers. Most of the application systems fall into two categories: financial systems including general ledger accounting and functions particular to an industry; distribution business systems including such functions as inventory control and product distribution.

*Principal products and services*

— complete municipal management system
— police system
— oil dealer distribution package

*Related products and services*

— financial management system
— traffic ticket system
— utility billing system
— fire incident and building inspection records

Personnel: 20
Annual sales: not disclosed
Senior executive:
Robert LeDoux
President

*For further information*

Michel D. Pret
Vice-president
or
Henri Lassonde
Marketing manager

*Distributor in the United States*

Ernst & Whinney
10 Broadway
St. Louis, Missouri 63102

**Computronic Data Systems**

50 Cremazie West, Suite 404
Montreal, Quebec
H2P 2T1
(514) 384-6860

When established in 1973, Computronic supplied professional programming and consulting services to both government and private sector clients. In 1977 the company started custom designing and manufacturing microcomputer systems for specific applications. Computronic Data Systems is in the process of penetrating the text-processing industry by manufacturing an international version of a text-editing system adaptable to any foreign language.

*Principal products and services*

— Arabic word processing equipment
— microcomputers
— programming and consulting

*Related products and services*

— custom designed microprocessors
— process control
— software

Personnel: 8
Annual sales: $500,000 in 1981
Senior executive:
Adly Salib
President

*For further information*

Louis Leveillé
Vice-president, marketing

Comterm Inc.

**Comterm Inc.**

545 Delmar Avenue
Pointe Claire, Quebec
H9R 4A7
(514) 694-3030
Telex 05-821812

Comterm was founded in 1970 to develop a range of terminals to decentralize access to data processing facilities. Comterm Inc. designs, develops, manufactures and markets sophisticated microprocessor-based terminals to users of large IBM and IBM compatible systems, both domestically and internationally. It also markets a line of bilingual Arabic/English display systems internationally. In addition, the company has color graphics display systems and multi-function, distributed processing systems in the design stage.

*Principal products and services*

— video display terminals
— multiplexers
— point-of-sale terminals
— bilingual Arabic/English computer terminals

Personnel: 150
Annual sales: $6 million in 1980
Senior executive:
Laurent Nadeau
President

*For further information*

Guy Senecal
Vice-president, marketing
or
Mr. Richard Shirley
Senior vice-president

*Branch offices*

43 Eglinton St., East, Suite 402
Toronto, Ontario
1184 - 6th Ave., West, Suite 101
Victoria, British Columbia

**Cybernex Ltd.**

1257 Algoma Road
Ottawa, Ontario
K1B 3W7
(613) 741-1540
Telex 053 4419

Cybernex was organized in 1974 to manufacture digitizing video terminals for serial survey work. A general purpose video terminal product line was introduced in 1977, leading to the present microprocessor-based line. The company's engineering team performs electrical, mechanical and microprocessor development supported by a manufacturing facility which manufactures up to 10,000 units annually. Sales are conducted through distributors in Canada, Germany, Norway, Belgium, Holland, Denmark, Australia and the United States. In North America custom designs and large volume sales are direct.

*Principal products and services*

— video terminals (TTY, formatting, entry level and APL)
— microcomputers (OEM systems and single board)
— microprocessor controlled digitizers
— graphics terminals

*Related products and services*

— custom manufactured microprocessor designs
— touch screen terminals
— sync and async emulations (e.g., Burroughs, Honeywell, and so on)

Personnel: 128
Annual sales: $5.2 million in 1981
Senior executive:
Jim Gadzala
President

*For further information*

Bruce Douglas
Vice-president, marketing
or
Wayne Reid
National sales manager

*Branch offices*

2457 Dunwin Drive
Mississauga, Ontario
L5L 1T1
(416) 828-2810
Telex 06522 093

## Dataline Inc.

**Dataline Inc.**

175 Bedford Road
Toronto, Ontario
M5R 2L2
(416) 964-9515

Dataline began operations in 1968 to supply timesharing services. Access to Dataline's six DEC-system 10s is through a national communications system. Sales are conducted through Dataline's own organization in major centres across Canada.

*Principal products and services*

— business accounting and reporting systems
— financial planning systems
— cash management systems
— data base system
— graphics and plotting software

*Related products and services*

— programming services
— consulting services
— facilities management

Personnel: 200
Annual sales: $10 million in 1981
Senior executive:
J.C. Paradi
President

*For further information*

R. Lord
Vice-president, marketing

*Branch offices*

Toronto, Ottawa, Montreal, Calgary, Vancouver

**David Computers Inc.**

133 Manitou Drive
Kitchener, Ontario
N2C 1L4
(519) 893-2700

David Computers Inc. was created in 1981 to manufacture a state-of-the-art Canadian microcomputer designed to be larger than personal computers but smaller than medium or "midi computers". David Computers Inc., is expecting to capture a large share of the market which has not yet been effectively tapped. Sales will be conducted internationally through distributors and computer stores. David's strength in application software is a major asset.

*Principal products and services*

— M68000-based microcomputer using UNIX
— memory boards (128kb, 256kb, 512kb)
— multiplexor (8-line)
— Pascal, C compilers

*Related products and services*

— screens
— printers
— application software - G/L, A/R, A/P, P/R
— word processing

Personnel: 12
Annual sales: not disclosed
Senior executive:
Gerald Forwell
President

*For further information*

Maurice Boughton
Marketing
or
Jack Cole
Technical

# DeKoning Software Associates Inc.

**DeKoning Software Associates Inc.**

Suite 204, 4544 Dufferin Street
Downsview, Ontario
M3H 5X2
(416) 665-8620

DeKoning Software Associates provides high quality software services for OEMs and medium and large end-users. The company specializes in the analysis, design, development and modification of mini and microcomputer software. Clients include: the Toronto Transit Commission, the Canadian Broadcasting Corporation and the Canadian Depository for Securities Ltd.

*Principal products and services*

- analysis, design, development and modifications of software for mini and microcomputers
- mini/microcomputer clusters
- OEM system software packages
- local area networks
- intelligent terminals
- custom applications
- mini/micro educational seminars
- operating systems support and enhancement
- real time control

*Related products and services*

- a mini and microcomputer network to enable real time data acquisition and control of 350 urban transit buses
- a minicomputer and intelligent terminal network to gather and edit news wire stories and automate the production of Canada-wide radio news broadcasts
- system software support of OEMs in Canada, the United States and France, including identifying system needs, installing and enhancing operating system software and writing a full set of support utilities
- development of a microcomputer based small business accounting system

Personnel: 4
Annual sales: $300,000 in 1982
Senior executive:
Gerard de Koning
President

*For further information*

Kenneth M. Checkel
Vice-president

**Delphax Systems**

977 Pantera Drive
Mississauga, Ontario
L4W 2W6
(416) 624-2643

Delphax Systems was formed in 1980 as a partnership between Denison Manufacturing Corp. and Canada Development Corp. Over the first two years of operations, the company has refined the original design of Denison Manufacturing and built several prototypes for field trails. The Delphax 2460 is a dot matrix printer with a resolution of 240 by 240 offering a full graphics capability and software creation of a range of print fonts using ion disposition techniques. It prints 60 pages per minute. Evaluation units were placed with major potential customers in September, 1981 and first production units shipped in the spring of 1982. Production units are expected to sell for about $12,000.

*Principal products and services*

— ion disposition imaging device

Personnel: 120
Annual sales: $20-30 million forecast for 1983
Senior executive:
Gary Ampulski
President

*For further information*

Tom Stoiber
Vice-president of marketing

*Affiliated companies*

Denison Manufacturing Corp., Framingham, Mass.
Canada Development Corp.

**Typewriter-to-intelligent-terminal converter**

Delta-Sigma Systems Ltd.

**Delta-Sigma Systems Ltd.**

505 Consumers Road, Suite 308
Willowdale, Ontario
M2J 4V8
(416) 444-3115
Telex 06-966764

Delta-Sigma Systems Ltd. was incorporated in 1979 to provide EDP management consulting services. Considerable success in this area and client requirements directed the company towards custom system integration and the design and manufacture of high technology single chip computer controllers. These controllers are used in various applications: data collection, protocol conversion and as terminal controllers. These applications are integrated with other components to provide complete systems.

*Principal products and services*

— FREEDOM - converts a regular Selectric to an RS232 terminal
— D5100 - desk-top multi-function view-edit computer
— D5300 - network master and data base computer
— Daisy - high speed daisy wheel printer controller

*Related products and services*

— custom development and manufacture of single chip computer controller designs
— custom communications software (protocols)
— complete packaged approach to office automation

Personnel: 5
Annual sales: $200,000 in 1980
Senior executive:
Demetrius Stavrinos
President

*Affiliated companies*

Update Electronics Inc.

D.E. Systems Ltd.

**D.E. Systems Ltd.**

1284 Wellington Street
Ottawa, Ontario
K1Y 3A9
(613) 729-5164

D.E. Systems was founded in 1969. It presently provides hardware and software for microprocessor-based computer systems. It provides services on all applications developed as well as providing data entry, word processing and education services.

*Principal products and services*

— CP/M based software and hardware
— financial packages
— order entry/inventory packages
— insurance packages
— word processing services

*Related products and services*

— service/support of all applications

Personnel: 135
Annual sales: $2 million in 1981
Senior executive:
Bruno A. Dugas
President

*Affiliated companies*

A-1 Data Services Ltd.
Data Key Systems Ltd.

Develcon Electronics Ltd.

**Develcon Electronics Ltd.**

856 - 51st Street East
Saskatoon, Saskatchewan
S7N 1Y7
(306) 664-3777
Telex 074-2780

Develcon Electronics Ltd. specializes in electronic data communications equipment, particularly in the limited distance transmission and data switching fields. The company executes all phases of product development from initial design and manufacture, through to the final customer sale and service. Develcon is recognized as a world leader in data switching technology. Sales offices have been established across the United States and Canada while expanding into European markets through local representation.

*Principal products and services*

— Dataswitch - intelligent central switching facility
— limited distance data sets both synchronous and asynchronous
— modems, modem eliminators
— data channel sharing units

Personnel: 100
Annual sales: $6.6 million in 1981
Senior executive:
Nigel T. Hill
President

*For further information*

Doug Freestone
Marketing manager
or
Chris Marsh
Manager international marketing

*Branch offices*

Toronto, Montreal, Vancouver

*Affiliated companies*

Develcon Electronics Inc.
Doylestown, P.A.

# Dictograph Marketing Company

**Dictograph Marketing Company**

89 Glencameron Road
Thornhill, Ontario
L3T 1N8
(416) 881-0074
Telex 06-964681

Dictograph Marketing was organized to produce the phone controller, a unit designed specifically to make telephones more efficient and easier to use. The company is in the process of designing other unique products, microprocesser-based telephone conversation items. Although sales are directed to the United States and Canada, distributors are being established throughout the world.

*Principal products and services*

— the phone controller, a sophisicated automatic dialer

Personnel: 20
Annual sales: $4 million in 1981
Senior executive:
Robert W. Walton
President

*For further information*

Martin Gold
Sales manager
Vice-president/director of marketing

**Micro, mini and mainframe computer systems**

Digital Equipment of Canada Ltd.

**Digital Equipment of Canada Ltd.**

P.O. Box 13000, 100 Herzberg Road
Kanata, Ontario
K2K 2A6
(613) 592-5111
Telex 053-4955
TWX 610-562-8907

Digital Equipment of Canada Ltd. is Canada's largest manufacturer of minicomputers and a leader in timesharing systems. In addition, the company is a major supplier of small, medium and large scale computers, peripheral equipment, interfacing devices, software packages and support services. Digital has sales/service branches across Canada.

*Principal products and services*

— microcomputers
— minicomputers
— mainframes
— full range of peripherals and terminals

*Related products and services*

— software services
— field service
— educational services
— computer special systems - custom engineering

Personnel: 1,800
Annual sales: $252 million in 1981
Senior executive:
D.G. Whiteside
President

*For further information*

Robert Bullis
Public relations supervisor

*Branch offices*

Major cities throughout Canada

**Digital Management Group Ltd.**

4800 Yonge Street
Willowdale, Ontario
M2N 6G5
(416) 225-7788

Digital Management Group was formed in 1980 to consult and support users of Digital Equipment of Canada Ltd's PDP-11 computer systems running under the RSTS/E operating system. In 1981 DMG introduced DMG/NET – a networking software package for RSTS/E hosts, allowing interactive communications with other computers over packet-switched networks. The WORD-11 word processing package is also supplied and fully supported for VAX systems.

*Principal products and services*

— DMG/NET - networking software package for RSTS/E hosts
— WORD-11 - Word processing package for VAX computers
— project planning and management
— custom applications and software package evaluations.

*Related products and services*

— system support and system management for Digital systems

Personnel: 9
Annual sales: $1 million in 1981
Senior executive:
John B. Dightam
President

*For further information*

Kenneth W. Allsopp
Director of marketing

# Ducros, Meilleur, Roy & Associates

**Ducros, Meilleur, Roy & Associates**

1200 McGill College Avenue
Montreal, Quebec
H3B 4G7
(514) 866-3301
Telex 055-61548

Ducros, Meilleur, Roy and Associates, a Canadian company, was incorporated in 1973. It provides consulting services in Canada, the United States and other parts of the world, in information management, data processing, teleprocessing and office automation.

*Principal products and services*

— management consulting
— executive education and planning
— system design, development and implementation
— office automation consulting and implementation

Personnel: 500
Annual sales: $ 19 million in 1981
Senior executive:
Pierre Ducros
President

*For further information*

Victor Roy
Partner

*Branch offices*

Boston, Calgary, Edmonton, Halifax, Montreal, Ottawa, Quebec, Saint John, Toronto, Vancouver

*Affiliated companies*

DMR Associates Inc.
One Washington Mall
Boston, Mass. USA 02108
Phone: (617) 720-2822

DY-4 Systems Inc.

**DY-4 Systems Inc.**

888 Lady Ellen Place
Ottawa, Ontario
K1Z 5M1
(613) 728-3711
TWX 610-562-8967

DY-4 Systems designs, develops and manufactures products incorporating the latest microprocessor technologies. Product line consists of medium resolution graphics terminals, modular microprocessor boards and computer systems. The company also carries out on a contract basis research and development related to the use of microprocessors and the application of high technology semiconductor devices.

*Principal products and services*

— Orion Family of microcomputers
— Dynet - local area network
— graphics terminals

*Related products and services*

— DSTD series of cards
— system software
— software

Personnel: 23
Annual sales: $2.2 million in 1982
Senior executive:
Garry Dool
President

*For further information*

Terry Black
Vice-president, marketing and sales

Dynakey Corporation

**Dynakey Corporation**

294 Albert Street
Ottawa, Ontario
K1P 6E6
(613) 236-2431

Dynakey was incorporated in 1980 to provide consulting and data entry capabilities to the public and private sectors.

*Principal products and services*

— feasibility studies
— user requirements studies
— statistical analysis
— systems analysis
— programming

*Related products and services*

— hardware selection
— networking
— communication studies

Personnel: 100
Annual sales: $2 million in 1981
Senior executive:
G. Lovasz
President

*For further information*

Alf Barber
Vice-president, marketing

**Dynalogic Info-Tech Corporation**

141 Bentley Avenue
Ottawa, Ontario
K2E 6T7
(613) 226-1383
Telex 053-3358

Founded in 1973 Dynalogic's first product was a floppy diskette controller for accounting machines. The product line has evolved over the past eight years to include complete microcomputer systems with application software disk storage subsystems which interface to other computers. The company is currently developing hardware and software for electronic mail applications.

*Principal products and services*

— Series 8000 Dynalogic Microcomputer System (DMS)
— Series 8000 DynaSTOR RS-232 Disk System
— Series 8000 DynaSTOR LSI-11 Disk System
— electronic mail terminal

*Related products and services*

— DynaLEDGER accounting software
— DynaLEGAL law office software
— DynaSCRIPT word processing software
— electronic mail software

Personnel: 35
Annual sales: $1 million in 1981
Senior executive:
C. Murray Bell
President

*For further information*

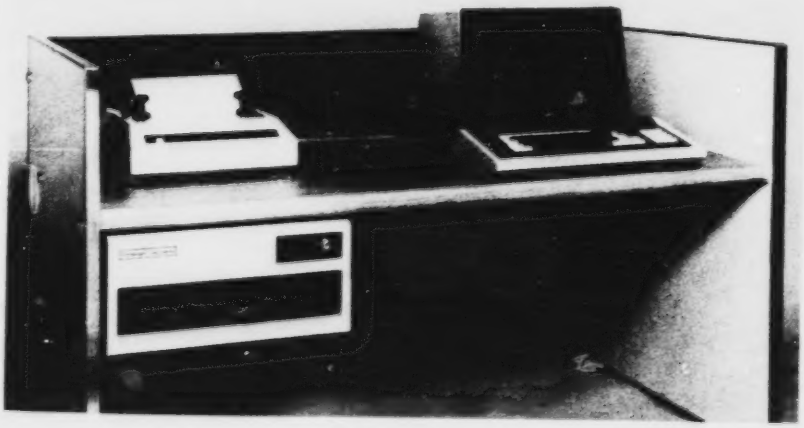
Geoff Earle
National sales manager
or
Paul R.J. Matthews
Marketing manager

*Branch offices*

801 York Mills Road
Don Mills, Ontario
M3B 1X7
(416) 444-0909

*Affiliated companies*

Bytec Management Corporation



# Electrohome Ltd., Electronics Division

**Electrohome Ltd. (Electronics Div.)**

809 Wellington St. N.
Kitchener, Ontario
N2G 4J6
(519) 744-7111
Telex 069-55449

Electrohome Ltd. was founded in Kitchener, Ontario in 1907. High growth led to divisional decentralization. The electronics division is presently organized as a profit centre in the commercial industrial electronic products, terminals and systems business. Electrohome is a world leader in video display, videotex and satellite TVRO technologies.

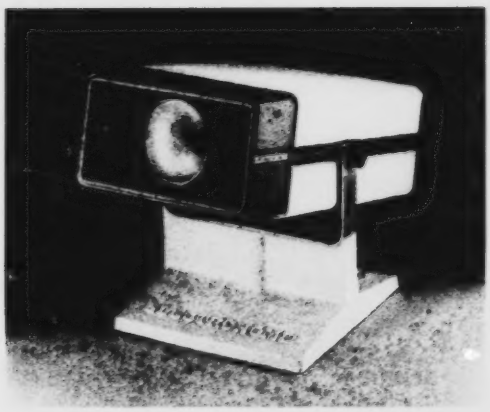
*Principal products and services*

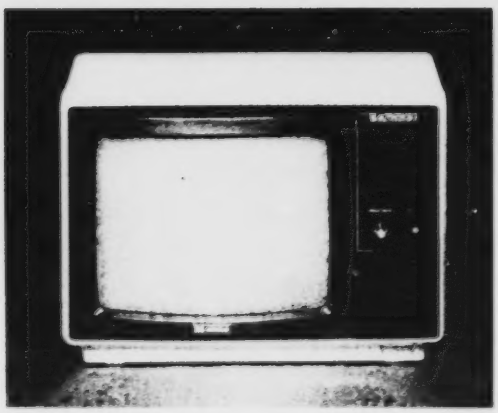
— "Office of the Future" work stations including intelligent terminals, color graphics displays and related peripherals such as data projectors

Personnel: 893
Annual sales: $140.3 million in 1981
Senior executive:
Herbert LaPier
Vice-president, Electrohome Ltd.

*For further information*

Gordon Lomax
Videotex marketing manager
or
Doug Wismer
Video display manager





**ESE Limited**

1780 Albion Road
Rexdale, Ontario
M9V 1C1
(416) 749-2271
Telex 06-989522
TWX 610-492-6360

ESE was formed in 1965 to design and develop data communications products and digital systems. The company was one of the pioneers in quadrature amplitude modulation for high speed modems. It currently designs, develops and manufactures a broad range of modems, multiplexors and network products for distribution in over 40 countries around the world.

*Principal products and services*

— medium and high speed modems to 14.4 kb/s
— multiplexors - synchronous and asynchronous
— line drivers
— digital circuit switching
— terminals and software

*Related products and services*

— system software
— telephone management systems

Personnel: 300
Annual sales: $10 million in 1981
Senior executive:
E.M. Strain
President

*For further information*

R.C. Willcocks
Director of sales and marketing
or
M. Burnham
National sales manager

*Branch offices*

Ottawa, Montreal, Calgary, Vancouver

*Affiliated companies*

Codex Corp.
Universal Data Systems
Motorola Inc.

# ExecuNet Corporation

**ExecuNet Corporation**
**(Office Products Div. of Mitel Corp.)**

302 Legget Drive
Kanata, Ontario
K2K 1Y6
(613) 592-6353
Telex 053-3545

ExecuNet Corporation was formed in 1981 to design, develop, manufacture and distribute microcomputer-based products to facilitate the decision making needs of executives and their support staff. The company's first family of products was introduced in 1982. Target markets are executives, managers, professionals and administrative assistants. The company's manufacturing facilities are situated in Kanata, Ontario. Sales distribution in Canada, the United States and Europe is being established.

*Principal products and services*

— executive workstation
— administrative workstation (word processing, decision support, etc.)
— communications software
— executive application software
— administrative support software

Personnel: 70 anticipated by May, 1983
Annual sales: not disclosed
Senior executive:
Fred Sorkin
President

*For further information*

Mark S. Diamond
Vice-president, marketing
or
Tara Gartke
Product manager

*Affiliated companies*

Bytec Management Corporation

## Extel Communications Canada Ltd.

Extel Communications Canada Ltd.

121 McPherson Street
Markham, Ontario
L3R 3L3
(416) 475-1693
Telex 06-966895
TWX 610-492-4459

Extel began as a sales/service office for the complete Extel line of teleprinters. In 1980, a manufacturing facility was built to produce the new "E" series Telex teleprinters. Extel provides installation, service and spare parts for teleprinters used on Telex, TWX/DDD, private-wire and receive-only telecommunications applications. Extel is the supplier of CNCP's modern Telex equipment.

*Principal products and services*

- Telex terminals
- receive-only teleprinters
- TWX/DDD and private-wire terminals
- TEMPEST secure receive-only teleprinters
- CRYPTO data teleprinters

*Related products and services*

- selective-calling telecommunications teleprinters

Personnel: 148
Annual sales: $15.2 million in 1981
Senior executive:
James Gray
Vice-president and general manager

*For further information*

Henry Teitelman
Sales supervisor
or
D. Hobbs
Manager customer services

Extel Communications Canada Ltd.

Foundation Electronic Instruments Inc.

**Foundation Electronic Instruments Inc.**

1794 Courtwood Crescent
Ottawa, Ontario
K2C 2B5
(613) 226-4000
Telex 053-4153

Foundation Electronic Instruments Inc. was incorporated in November, 1977. Since its inception, the company has concentrated on design and manufacturing of high quality fibre optic systems for analog and data communications. The company provides equipment for short distance intra-office data communications, as well as long distance telephone trunking equipment. Sales are conducted through distributors in Canada, the United States, France, Norway, Switzerland, South Africa and Australia.

*Principal products and services*

— fibre optic data modems
— fibre optic telephone trunking equipment
— data multiplexers
— data demultiplexers
— broadband fibre optic transmission systems

*Related products and services*

— custom system design
— consulting

Personnel: 35
Annual sales: $2.6 million in 1981
Senior executive:
Attila J. Szanto
President and chief executive officer

*For further information*

Menno Stoffels
Vice-president of engineering

**Gandalf Data Ltd.**

9 Slack Road
Ottawa, Ontario
K2G 0B7
(613) 225-0565
Telex 053-4728

Gandalf was established in 1970 and has since become a leading Canadian manufacturer and supplier of data communications equipment. The company's engineering personnel perform research and development functions supported by manufacturing facilities in all three plant locations. Distributors market Gandalf products in Europe, Asia, Far East, Middle East, Australia, South Africa and Pacific Rim countries.

*Principal products and services*

— local data sets
— limited distance modems
— modems
— multiplexers
— data switching systems (PACX - private automatic computer exchanges)

*Related products and services*

— transmission test sets
— interface converters
— mobile data terminals

Personnel: 830
Annual sales: $40 million in 1981
Senior executive:
Colin D. Patterson
President

*For further information*

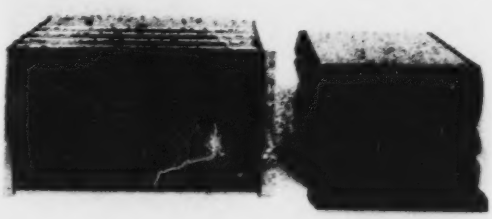
Wade Frembd
Marketing manager
or
Peter Kawchak
Vice-president, sales

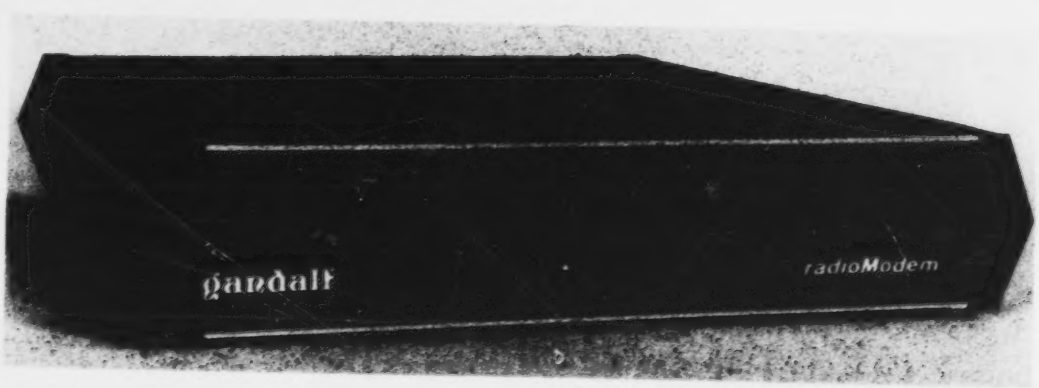
*Branch offices*

Toronto, Montreal, Quebec, Calgary, Edmonton, Vancouver, Victoria

*Affiliated Companies*

Gandalf Data Inc., 1019 South Noel, Wheeling, Illinois, 60090
Gandalf Digital, 19 Kingsland Grange, Woolston, Warrington, Cheshire, England. WA1 4RW





Genesys Group Inc.

**Genesys Group Inc.**

1755 Courtwood Crescent
Ottawa, Ontario
K2C 3J2
(613) 226-8740

Genesys Group was established in 1974 to provide consulting services to government and industry. The company has significant experience in scientific applications in the areas of remote sensing, major processing and graphics. The Telidon product line developed by Genesys includes turnkey systems, software systems and IBM support library.

*Principal products and services*

— consulting in EDP applications
— consulting in Telidon
— Telidon turnkey systems supplier

*Related products and services*

— systems integration

Personnel: 16
Annual sales: $1.5 million in 1981/82
Senior executive:
Gunter Kurz
President

*For further information*

Michael Gough
Vice-president
or
Nathan Gough
Director of marketing

## GTP Office Communications Corporation

880 Wellington Street, Suite 324A
Ottawa, Ontario
K1R 6K7
(613) 235-0287

GTP was incorporated in 1980 to provide consulting expertise in the burgeoning microprocessor field. Several major studies were conducted the first year including one defining the Canadian Educational Microcomputer. GTP has moved into many microprocessor oriented fields such as word processing, computer-aided translation and integrated telecommunication systems

*Principal products and services*

— consulting service particularly in the area of microcomputer integration into the office of the future, integration with minicomputers and main-frames and communication networks.

Personnel: 3
Annual sales: $150,000 in 1982/83
Senior executive:
G.R. Tweedale
President

*For further information*

M.G. Pearson
Vice-president, R&D
or
Mr. T.J. Grinnell
Vice-president, consulting

GTP Office Communications Corporation

# Harris Computer Systems

**Harris Computer Systems**

1150 Morrison Drive
Ottawa, Ontario
K2H 8S9
(613) 829-8888
Telex 053-3176

Harris Computer Systems was formed in 1976 to provide turnkey minicomputer systems for business applications. The installed base is made up of a cross section of business applications and includes a number of vertical markets as well as sites where a completely custom approach has been taken. Harris uses Digital Equipment of Canada Ltd. hardware for all its turnkey systems.

*Principal products and services*

— Digital data systems
— application software development
— systems analysis
— used computer sales
— computer maintenance

Personnel: 35
Annual sales: $3 million in 1981
Senior executive:
R. Nigel H. Harris
President

*For further information*

Gordon Patterson
Vice-president, marketing

*Branch offices*

215 Carlingview Drive
Rexdale, Ontario
(416) 675-2808

**Hickling-Partners Inc.**

605 – 350 Sparks Street
Ottawa, Ontario
K1R 7S8
(613) 237-2220

Hickling-Partners is a Canadian management consulting practice serving Canadian and offshore clients for over eight years. HPI consultants offer expertise in a wide range of disciplines including: information systems analysis and development, office systems, project and program evaluation and assessment, product and service market research, program management, personnel and organizational assessments.

*Principal products and services*

— management consulting
— executive recruitment
— information systems services
— analysis methodologies
— office automation services

*Related products and services*

— training
— software products

Personnel: 50
Annual sales: $2.8 million in 1981
Senior executive:
James F. Hickling
Senior partner

*For further information*

Colin Griffiths
Partner, office systems

*Branch offices*

Toronto, Vancouver

## OCR data entry and communications products, and computer systems

# HiTech Canada Ltd.

**HiTech Canada Ltd.**

1390 Prince of Wales Drive
Ottawa, Ontario
K2C 3N6
(613) 226-7800
Telex 053-3262

HiTech Canada Limited was founded as a wholly Canadian-owned company in 1973. It has developed a line of data entry and communications products and turnkey computer systems, and offers professional consulting services. HiTech's principal product accomplishment has been the development of proprietary OCR technology (optical character recognition) which is incorporated into many of the systems assembled for both government and private sector clients.

*Principal products and services*

— IMAGER 1000 - optical page reader
— software systems for business accounting, manufacturing applications, file management, etc.
— network controllers
— microprocessor-based systems

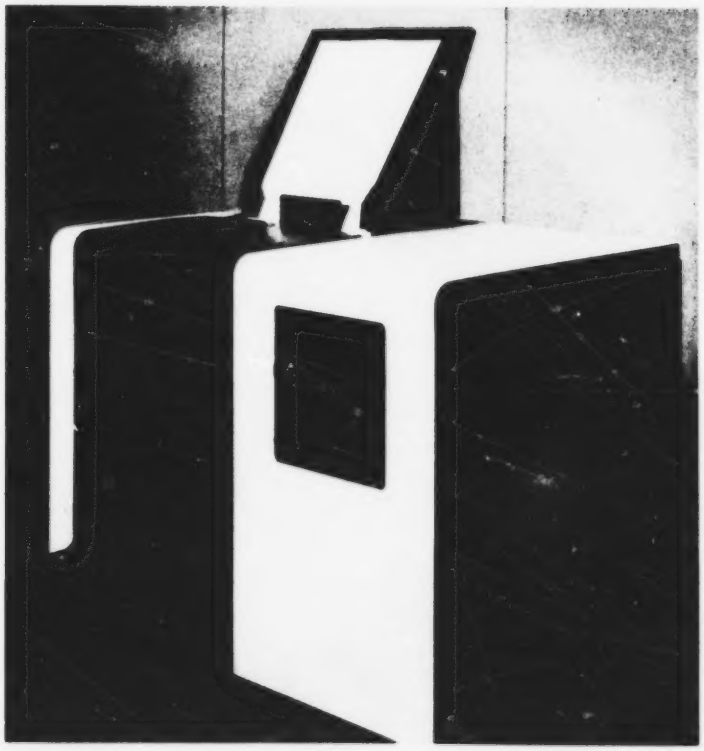
*Related products and services*

— systems analysis and consulting
— custom software

Personnel: 50
Annual sales: not disclosed
Senior executive:
Stephen H. Sandler
President

*For further information*

Allan B. Churgin
President of systems group
or
Joe F. Shaw
Director of data handling and communications systems



**Homecom Learning Systems Ltd.**

91 Glencameron Road
Thornhill, Ontario
L3T 1N8
(416) 223-1652

Homecom was organized in 1978 to design operating system software for the Honeywell Level-6 minicomputer enabling colleges in Ontario to transfer their computer learning to a cheaper "in-house" system. The Homecom Can-8/Level-6 system services eleven colleges and school boards in three counties and is marketed by Honeywell Limited. Homecom is currently developing automated authoring and graphics authoring system options.

*Principal products and services*

- CAN-8 (16 to 128 terminals) operating system
- educator's automated authoring system (EAASY)
- test item data bank
- computer communications (CANNET)
- graphics authoring packages
- basic language instruction option (BASIC TEACH)

*Related products and services*

- sub-contractor to Telidon systems
- graphics production for industry (GIPSY)

Personnel: 7
Annual sales: $250,000 in 1982
Senior executive:
Graham Scott
President

*For further information*

John Dunlop
General manager

*Affiliated companies*

Homecom Leasing Systems Ltd.
Gipsy Graphics Ltd.

# Human Computing Resources Corporation

**Human Computing Resources Corporation**

10 St. Mary Street, Suite 401
Toronto, Ontario
M4Y 1P9
(416) 922-1937

Human Computing Resources was founded in 1976 by a group of people from the University of Toronto to provide computer graphics and computer systems expertise to business, industry, and government clients and to develop computer graphics system products. While still active in graphics, the bulk of the company's recent work has been in computer systems consulting and contract R&D. The company has entered aggressively into the UNIX-based software products area and established a reputation as a high quality software products supplier. The company is organized into three divisions: the software products division is involved in sales and support of software products; the consulting services division provides consulting contract R&D services to clients, primarily in the areas of operating systems and computer graphics; and the interactive computer graphics division has been engaged in the development of proprietary graphics software products.

*Principal products and services*

— XENIX - UNIX Version 7
— RT-11 emulator under UNIX
— COBOL under UNIX
— relational DBMS under UNIX
— Multiplan - financial planning under UNIX

*Related products and services*

— UNIX operating systems ports
— low cost CAD/CAM systems
— computer graphics consulting services
— development of software tools

Personnel: 20
Annual sales: $1.6 million in 1982
Senior executive:
Ronald Baecker
President

*For further information*

Edward Borkovsky
Vice-president, marketing

**Hutchinson Smiley Limited**

10 St. Mary Street, Suite 604
Toronto, Ontario
M4Y 1P9
(416) 967-6654

Hutchinson Smiley Limited is a management and information systems consulting firm incorporated in 1977. During its first five years of operation, it has provided consulting services to business, government and industry thereby establishing a reputation for excellence and a commitment to producing results.

*Principal products and services*

— management information systems consulting
— software development
— strategic systems planning
— office automation consulting
— systems design and programming

*Related products and services*

— development of turnkey systems
— information resources management
— information of DP/OA and communications

Personnel: 20
Annual sales: $500,000 in 1981
Senior executive:
Hamilton B. Hutchinson
Chairman of the board

*For further information*

Robert W. Sydia
President

*Branch offices*

Toronto

# IAS Computer Corporation Ltd.

**IAS Computer Corporation Ltd.**

6080 Young Street, Suite 401
Halifax, Nova Scotia
B3K 5L2
(902) 453-4620

IAS was started in 1976 as an on-line timesharing service bureau providing subscriber billing and accounting systems to cable TV companies throughout Atlantic Canada. In 1980/81 a fully integrated general accounting package (G/L,A/R,A/P) was introduced and licensed in several sites across Canada and the United States. Modules of time management and club accounting have been added and further modules of custom design will be developed on a contractual basis. The company now produces packaged or custom software in addition to turnkey minicomputer systems.

*Principal products and services*

— business related application software (packaged and custom design)
— turnkey minicomputer systems
— on-line timesharing services

*Related products and services*

— software support
— facilities management
— management consulting
— systems analysis and project management

Personnel: 11
Annual sales: $700,000 in 1981
Senior executive:
Daniel F. Potter
President

*For further information*

David Alward
Vice-president, marketing

## Full range computer and peripheral supplier

# IBM Canada Ltd.

**IBM Canada Ltd.**

1150 Eglinton Avenue, East
Don Mills, Ontario
M3C 1H7
(416) 443-2111
Telex 06-966574

IBM Canada Ltd. manufactures and markets a wide range of data processing and word processing systems and related supplies, in addition to providing data centre services. The Don Mills plant manufactures video display terminals and other input/output devices for North and South America and for the Far East. The Bromont plant makes high-density circuit components used in most IBM products manufactured in US factories.

*Principal products and services*

— electronic typewriters and a complete range of word processing units and systems
— copiers and laser printers
— CRT terminals and printer terminals
— communications controllers and interfaces

*Related products and services*

— system software development
— mainframe computer systems
— small business computers
— data processing centres

Personnel: 12,000
Annual sales: $1,845 million in 1981
Senior executive:
L.K. Lodge
President and chairman

*For further information*

Carl Corcoran
Vice-president, operations

*Branch offices*

In major centres all across Canada

*Affiliated companies*

International Business Machines Corporation
Armonk, New York

# Imata Systems Corporation

**Imata Systems Corporation**

1684 Woodward Drive, Suite 208
Ottawa, Ontario
K2C 3R8
(613) 226-5832

Imata is a group of experienced professionals who can assist with information management projects and problems. Members of the Imata team can advise in areas ranging from hardware purchases to distributed data bases. They assist technically and organizationally. Their assistance extends to defining and managing projects. Imata develops in-house training sessions and provides a series of publicly available courses on computer literacy and on data base systems.

*Principal products and services*

— information management hardware and software
— data base designs
— systems technologies education
— computer technology in the classroom
— information processing requirements analysis

*Related products and services*

— feasibility studies
— technology interpretation
— organization reviews
— education planning and development

Personnel: 8
Annual sales: $500,000 in 1982
Senior executive:
Lanny G. Klassen
President

*For further information*

Thomas V. Welch
Vice-president, education services
or
Charles W. Ploeg
Vice-president, advisory services

**Imteks International Inc.**

33 Lincoln Green Drive
Markham, Ontario
L3P 1R6
(416) 294-2969

Imteks, a development company, is now poised to introduce the PPT-10, its first product. This device is ideally suited for the graphic arts marketplace, providing sophisticated proof copy capability. In a more limited version the PPT-10 serves the office automation marketplace as an intelligent copier printer supplying copy in several font families, faces and sizes. The PPT-10 combines the utility of line printer, copier and typesetter in one device.

*Principal products and services*

— plain paper typesetter - model 10 (PPT-10), a new generation of plain paper typesetters

*Related products and services*

— dot editor for creating/modifying new or existing characters and logos
— the frame grabber, an electronic digital camera for font capture

Personnel: 5
Annual sales: $100,000 in 1981
Senior executive:
Jeffrey D. Rapson
President

*Affiliated companies*

Imteks Inc.
722 Danbury Road
Ridgefield, CT
06877

Infomart

**Infomart**

164 Merton Street
Toronto, Ontario
M4S 3A8
(416) 489-6640
Telex 06-217665

The world's leading provider of Telidon systems and services.

*Principal products and services*

— Telidon software
— Telidon operations
— private file service

*Related products and services*

— SDC search service
— Telidon page creation and consulting services

Personnel: 200
Annual sales: not disclosed
Senior executive:
David M. Carlisle
President

*For further information*

Neil A. Baird
Vice-president, marketing

*Branch offices*

Calgary
Winnipeg
Ottawa

*Affiliated companies*

Times Mirror Videotex Services Inc.

**Innovative Computer Systems Corp.**

3655 Weston Road
Weston, Ontario
M9L 1V8
(416) 745-9670

Manufacturer of business and personal computers and equipment for single or multi-user applications.

*Principal products and services*

— Millennium - business system
— Alpha Omega - personal system
— full software packages
— single or multi-user equipment

*Related products and services*

— service
— design

Personnel: 15
Annual sales: $15 million in 1982
Senior executive:
R.J. Sands
Director

*For further information*

J. McGregor
Vice-president, accounting

# Integrated Communications Systems Inc.

**Integrated Communications Systems Inc.**

134 Abbott Street
Vancouver, B.C.
V6B 2K4
(604) 687-5200

Integrated Communications Systems Inc. was incorporated with the purpose of developing and marketing solutions to the business community in the form of micro/mini based computer systems. The company specializes in software development for the medical, dental and point-of-sale markets. ICSI has also developed a very powerful cryptographic system which is based on one-way "trapdoor knapsack" functions. The company is also heavily involved in the design and implementation of electronic mail networking which encompasses Telex, TWX, word processing and facsimile. Products are marketed directly and through dealers.

*Principal products and services*

— mini and micro turnkey computer systems
— advanced multifunction communication terminals
— electronic mail systems and design
— specialized software for medical, dental and point-of-sale
— public key encryption software packages

*Related products and services*

— custom designed systems and software

Personnel: 14
Annual sales: $1.5 million in 1981
Senior executive:
Pat V. Normoyle
President

*For further information*

Robert G. Anderson
Vice-president, marketing
or
Paul Rickett
Vice-president, finance

**Intellitech Canada Ltd.**

352 MacLaren Street
Ottawa, Ontario
K2P 0M6
(613) 236-7803

Intellitech Canada Ltd. is a high technology systems engineering firm founded in 1972. The company specializes in areas directly related to communication and computer systems. Hardware and software expertise have been combined to produce a solid base of engineering and consulting services for the client. A strong research and development effort supports the high quality of these services and is responsible for Intellitech's specialized products.

*Principal products and services*

Engineering and consulting services in the areas of:
— communications architectures and protocols
— distributed processing systems
— communications networks
— transmission systems
— spectrum management systems
— mini/microcomputer systems
— data base and information systems

*Related products and services*

— EDP consulting
— training and education

Personnel: 25
Annual sales: $1.2 million in 1981/82
Senior executive:
K.C. Toth
President

*For further information*

J. Ouimet
Senior project engineer

## Automated message handling terminals and teleconferencing equipment

# Intercontinental Data Control Corp. Ltd.

**Intercontinental Data Control Corp. Ltd.**

2373 Stevenage Drive
Ottawa, Ontario
K1G 3W1
(613) 733-4440
Telex 053-4274

Interdaco, a Canadian owned company, took over NR Systems Ltd. in 1978, a manufacturer of data transmission equipment for domestic and international telephone and telegraph customers for more than 20 years. Interdaco has continued to develop new state-of-the-art telecommunications products. It has equipment installed in over 70 countries.

*Principal products and services*

— automated video message terminals
— teleconference equipment
— voice frequency carrier telegraph terminals
— time division multiplex terminals
— speech-plus data terminals

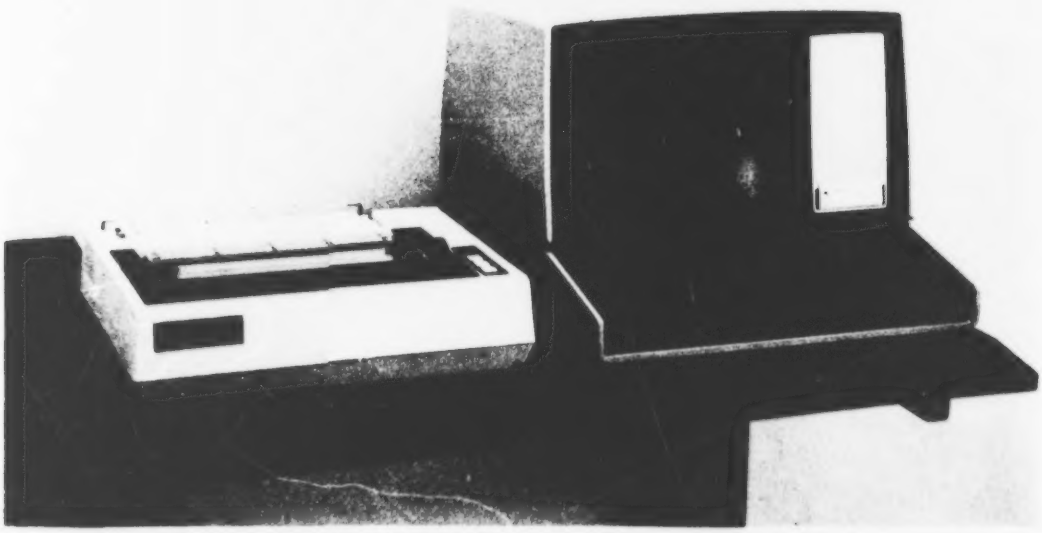
*Related products and services*

— microprocessor-controlled frequency shift keyers

Personnel: 45
Annual sales: $2.5 million in 1981
Senior executive:
R.R.B. Hoodspith
President

*For further information*

Peter Pritchard
Manager, telecom systems
or
Richard Lee
Manager, military products
or
Bill Hayes
Manager, export sales



**I.P. Sharp Associates Ltd.**

2 First Canadian Place
Toronto, Ontario
M5X 1E3
(416) 364-5361
Telex 06-22259

Established in 1964, I.P. Sharp Associates is Canada's largest supplier of APL timesharing and one of the country's top ten computer service companies. Company headquarters are in Toronto with wholly owned subsidiaries in Australia, Austria, Belgium, Denmark, France, Hong Kong, Italy, The Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, United States, United Kingdom and West Germany. The company's private packet switched network provides local access to the timesharing system from over 400 cities around the world. The system also makes available to customers the world's largest on-line source of numeric data bases, over 20 million time series in all. I.P. Sharp's Special Systems Division provides complete project management responsiblilty for large turnkey systems as well as feasibility studies, hardware evaluation and selection, system design, contract programming and design, and selection of communications facilities.

*Principal products and services*

— public data bases
— APL timesharing
— consulting
— application software
— APL system software

Personnel: 500
Annual sales: $42 million in 1981
Senior executive:
Ian P. Sharp
President

*For further information*

R. Wild
Marketing services manager

*Branch offices*

60 branches in 20 countries

# ISS Information System Services Ltd.

**ISS Information System Services Ltd.**

399 West 6th Avenue
Vancouver, British Columbia
V5Y 1L1
(604) 879-6272

Formed in 1974, this company is now the largest independent software consulting firm in western Canada. ISS services over 250 clients. During the past eight years ISS has installed 153 systems and over 850 pieces of software. Integrating office systems for professional productivity is becoming a major part of their business.

*Principal products and services*

— consulting at all levels of management
— project management
— turnkey computer and office automation systems
— custom designed application software
— software packages for resale under licence

*Related products and services*

— computer security consulting
— computer media security vaults
— programmer/analyst services

Personnel: 72
Annual sales: $4.1 million in 1981
Senior executive:
K.J. McLennan
President

*For further information*

Dave Chapman
Vice-president, B.C. region
or
Bob Johnson
Vice-president, marketing

*Branch offices*

Victoria
Vancouver
Edmonton
Calgary

*Affiliated companies*

Data Management Group (wholly-owned subsidiary)
Western Software Limited (wholly-owned subsidiary)
Security Projects Limited (wholly-owned subsidiary)

**Laurier Group (The)**

275 Slater Street, Suite 1404
Ottawa, Ontario
K1P 5H9
(613) 234-8336

The Laurier Group of Systems and Management Consultants Incorporated is an employee-owned firm specializing in information processing. The company offers services in planning and implementation of office automation systems, particularly systems interfaced with EDP and telecommunications. The company has prepared plans for government agencies involving computer terminals, minicomputers, large-scale mainframes, packet switched networks, and OA hardware. OA systems involving word processors, OCR, minicomputers, photo-composition and electronic mail have been implemented.

*Related products and services*

— management consulting in information processing
— system implementation

Personnel: 15
Annual sales: $1 million in 1982
Senior executive:
John G. Harris
President

# Logo Computer Systems Inc.

**Logo Computer Systems Inc.**

222 Brunswick Blvd.
Pointe Claire, Quebec
H9R 1A6
(514) 694-2885
Telex 05-821624

Logo Computer Systems Inc. was created in September 1980 to develop the Logo programming language and to disseminate it through implementation on microcomputers. The formation of the company involved the grouping of most of the engineers who had been at the core of the Logo development team at M.I.T. including the founder of Logo, Dr. Seymour Papert.

*Principal products and services*

— Apple Logo - software and documentation

Personnel: 50
Annual sales: not disclosed
Senior executive:
Guy Monpetit
President

*For further information*

James Baroux
Executive vice-president

*Branch offices*

Boston
New York

# Matrox Electronic Systems Ltd.

**Matrox Electronic Systems Ltd.**

5800 Andover Avenue
Montreal, Quebec
H4T 1H4
(514) 735-1182
Telex 05-825651

Formed in 1976, Matrox is a world leader in microcomputer displays, video boards and systems. A pioneer in raster scan computer graphics, the company manufactures a full line of video boards for industry's most popular micro and minicomputers, including alpha-numeric, graphics, and B/W and color raster scan displays. In addition, the company manufactures a line of microcomputer systems based on 8-bit and 16-bit CPUs together with disk drives and disk operating systems. Over 95 per cent of production is shipped to the United States, Western Europe and Japan.

*Principal products and services*

— microcomputer displays – plug-in modules and video boards
— microcomputer systems – based on Z-80 and 8086 CPUs
— computer graphics systems – B/W or color
— color CRT terminals – high resolution
— custom display design – complete raster scan displays

Personnel: 135
Annual sales: $8.5 million in 1981
Senior executive:
Branko Matic
Vice-president, administration

*For further information*

Lorne Trottier
Vice-president, operations

*Affiliated companies*

Matrox International Corp.
Mooers, New York

## X.25 packet network communications processors

Memotec

**Memotec,**
**Division of International Systcoms Ltd.**

4940 Fisher Street
Montreal, Quebec
H4T 1J5
(514) 738-4781
Telex 05-825625
TWX 610-422-3065

Memotec is the designer and manufacturer of statistical multiplexors for X.25 public and private packet switched networks and for private line applications. User protocols supported are: (1) asynchronous - baudot to 8-bit binary data including 8 bits plus parity; (2) synchronous 3270 BSC III and 2780/3780 BSC; and (3) word processor synchronous and asynchronous. Line protocol supports X.25 level III HDLC and BSC framing, and Teletex. Sales are conducted through distributors in Canada, Germany, England, France, The Netherlands, Italy, Israel, Belgium, Austria, Switzerland, Denmark and the United States.

*Principal products and services*

— MPAC 100, 1000, 2000 and APAC 1600 asynchronous
— MPAC 4000 synchronous
— STATPAC 600 asynchronous
— MPAC 6000 asynchronous/synchronous
— MPAC 2500 X.25 mini-node

Personnel: 35
Annual sales: $5.0 million in 1981
Senior executive:
Adam J. Bardach
General manager

*For further information*

Daniel Gregory
National sales manager

*Branch offices*

1441 Dunwoody Village Parkway
P.O. Box 888404
Atlanta, Georgia 30338
(404) 396-2010
TWX 810-757-0207

**Micom Company**

5250 Ferrier
Montreal, Quebec
H4P 1L4
(514) 341-5680
Telex 055-61490

Micom was founded in 1975 to develop and manufacture the first software programmable word processor. Complemented by a full range of applications software, the hardware product line includes the standalone 2001, expanded memory 200IE (128k) text input 1001, the executive "timetrak" and the newest standalone the Micom 3003. Sales direct through 15 branches; indirect 10 agents. Micom's manufacturing facility in Montreal is the world centre for Philips and Micom word processing equipment.

*Principal products and services*

— word processing systems
— applications software
— communications software (asynch, bisynch, Miconet and is first system to be certified for Infotex)

*Related products and services*

— supplies and accessories (diskettes, ribbons, etc)
— peripheral equipment (acoustic covers, printers)
— system furniture

Personnel: 1,400
Annual sales: $140 million in 1981
Senior executive:
Stephen Dorsey
President

*For further information*

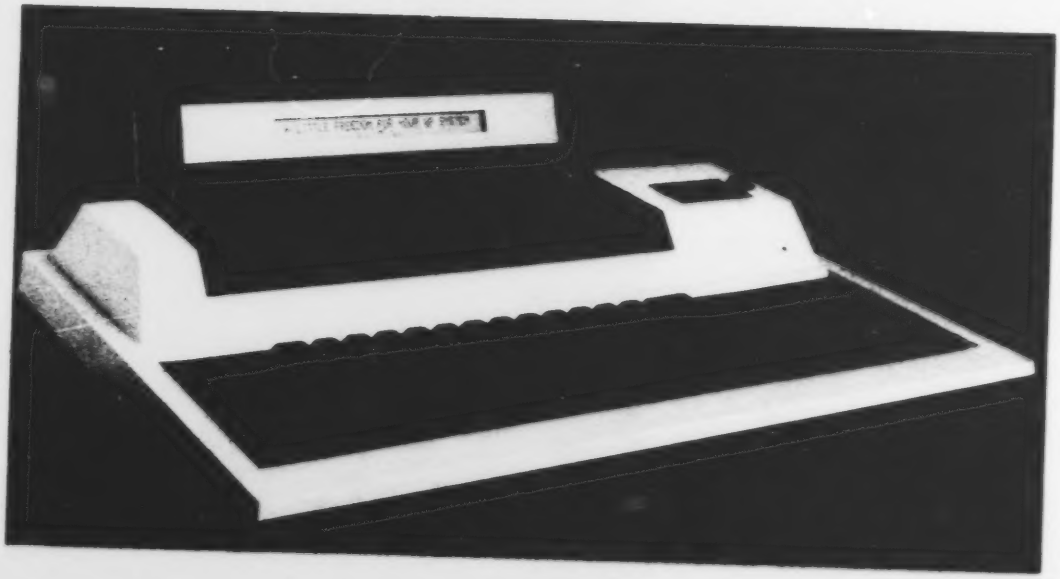
Robert E. Pace
Vice-president, marketing

*Branch offices*

Major cities throughout Canada

*Affiliated companies*

Micom Co. is affiliated with N.V. Philips of the Netherlands which markets Micom products outside of North America. Micom's wholly-owned subsidiary, Philips Information Systems, markets Micom products line in the United States.



## Microprocessor-based industrial controllers, computers and display boards

Mini-Peripherals Inc.

**Mini-Peripherals Inc.**

2224 Innes Road
Ottawa, Ontario
K1B 4C4
(613) 837-2410
Telex 053-4979

Mini-Peripherals Inc. was incorporated in 1974 to manufacture interfaces and peripheral devices for micro and minicomputers. A general purpose microprocessor-based computer was introduced in 1976 and has found application in pollution control, industrial process control and in the office environment. The company recently moved to larger quarters and expanded its line of microprocessor-based products to include EPROM programmers for production applications. The company has a sales office in Switzerland and distribution throughout Europe.

*Principal products and services*

— microcomputers (OEM systems and single boards)
— graphics terminals
— EPROM programmers
— smooth scrolling message display boards
— numeric control for press brakes

*Related products and services*

— custom manufactured microprocessor design

Personnel: 22
Annual sales: $1.3 million in 1980
Senior executive:
Norman J. McKay, P. Eng.
President

*For further information*

H. Wiskemann
Comptroller

*Affiliated companies*

Glengarry Components Co. Ltd.

**Mitel Corporation**

350 Legget Drive, P.O. Box 13089
Kanata, Ontario
K2K 1X3
(613) 592-2122
Telex 053-4596
TWX 610-562-8529

Mitel Corporation is an international manufacturer of telecommunications products including electronic telephone switching systems (PABXs), custom designed tone signalling and central office interface equipment, plus integrated and thick film hybrid circuits. Mitel began operations in 1973. Today the company's products are manufactured in 13 facilities on three continents and marketed in 56 countries through 45 sales offices.

*Principal products and services*

- PABX telephone switching systems (analog and digital)
- peripheral terminal equipment
- integrated circuits
- telecommunications products (tone receivers, tone generators)

Personnel: 2,500
Annual sales: $204.1 million in 1981/82
Senior executive:
Michael Cowpland
President and chief executive officer

*For further information*

Jim J. Mackie
Vice-president, marketing services

*Branch offices*

Major centres in Canada

*Affiliated companies*

Mitel has ten operating subsidiaries in various parts of the world, the principal ones being:
Mitel Inc., U.S.A
Mitel Telecom Limited, England

MPB Technologies Inc.

## Graphic systems for business, scientific and broadcast applications

**MPB Technologies Inc.**

P.O. Box 160, 21051 North Service Road
Ste. Anne de Bellevue, Quebec
H9X 3L5
(514) 457-2035
Cable MPBTCAN

Federally incorporated late in 1976, MPB Technologies Inc. specializes in high quality electronic graphics systems and application of microprocessor systems to custom requirements. The company is a major supplier to the Canadian Broadcasting Corporation and has representatives in the United States, Japan, Canada, Europe and Australia. The company is designing the instrumentation and control system for the Varennes Tokamak National Fusion Facility.

*Principal products and services*

- VISTA 90 - standalone graphics work station for business and scientific applications
- VISTA 80 - graphic system for broadcast applications
- camera compose system
- digitizers and NTSC encoders

*Related products and services*

- various options for above - printers, cameras
- mainframe computer graphic interface
- custom manufactured microprocessor designs
- special software

Personnel: 35
Annual sales: $2.0 million in 1982
Senior executive:
M.P. Bachynski
President

*For further information*

R.J. Clark
Assistant vice-president, digital products and technology
or
F.G.R. Warren
Vice-president, digital products and technology

## MPS – Management Planning Software Group

201 Consumers Road, Suite 201
Willowdale, Ontario
M2J 4G8
(416) 491-4231

MPS began in 1974 to develop and market specialized software products. The company offers software in Relational data base, information management and timesharing network services. Products are marketed through distributors in the United States, Europe and South America.

*Principal products and services*

- interactive decision support system (IDSS)
- ORACLE - relational data base system
- electronic mail network services
- timesharing computer services via Datapac

*Related products and services*

- business graphics
- scheduling applications software
- turnkey computer systems

Personnel: 15
Annual sales: $1.5 million in 1982
Senior executive:
H.K. Thadaney
President

*For further information*

Ray D. Talwar
Vice-president, marketing

*Branch offices*

Ottawa

*Affiliated companies*

Apex Computing Resources

MPS–Management Planning Software Group

Multitek Inc.

**Multitek Inc.**

2 Complexe Desjardins, Suite 1516
Montreal, Quebec
H5B 1C6
(514) 285-1122

Multitek was incorporated in 1969 from the data processing division of Pouliot, Guérard Inc., to offer EDP consulting services. It has since then acquired three Digital Equipment of Canada System 2060, with 200 data links across Canada, some of which extend to the United States and England. Multitek's customers use the facility to develop and operate their own systems for word processing or operate systems designed to respond to specific needs.

*Principal products and services*

— service bureau
— on-line, interactive systems
— word processing
— library system
— custom applications

*Related products and services*

— APL, Basic, Pascal
— Fortran, Cobol
— LIAD

Personnel: 25
Annual sales: $2.5 million in 1981
Senior executive:
Yves Guérard
President

*For further information*

Jean-Louis Gauvin
Jacques Hebert
Guy Martin

*Branch offices*

Quebec, Toronto, Vancouver

*Affiliated companies*

Le Groupe Sobeco
Pouliot, Guérard Inc.
Fraser Watson Actuaries Ltd.
Pouliot, Guerard & Clare Inc.
Sobeco Inc.

**Nabu Manufacturing Corporation**

485 Richmond Road
Ottawa, Ontario
K2A 3Z2
(613) 725-3300

Nabu was created in 1981 through the amalgamation of seven companies engaged in related aspects of the computer and communications industry: the design development and manufacture of microcomputers; the design and development of computer software; the retail and wholesale distribution of small computer systems; and the manufacture and marketing of cable television converters. Nabu has since acquired a computer terminal manufacturer and a manufacturer of terminals and data entry system. Nabu distributes ..s current products through its direct sales force and network of retail outlets.

*Principal products and services*

- commercial microcomputer systems including business microcomputers, data entry devices and supporting software packages
- commercial terminals for export and domestic markets, including a provincial lottery terminal
- cable television converters

*Related products and services*

- Nabu is developing computer hardware, related devices and software to enable users of Nabu microcomputers to communicate with other computers, principally the cable operator's head end computer using the cable network as a communications medium. These products will be distributed principally through cable network operators.

Personnel: 800
Annual sales: $17 million in 1981
Senior executive:
John B. Kelly
Chairman

*For further information*

Eric Goodwin
Vice-president, corporate accounts

*Branch offices*

Computer Innovations outlets in: Ottawa, Kingston, Toronto, Calgary, Vancouver, Markham, Willowdale, Montreal, Ville Les Saules, Regina and Winnipeg.

*Affiliated companies*

Mobius Software (1981) Inc.

Nanotec Ltd.

**Nanotec Ltd.**

Box 610, 42 Mill Street
Almonte, Ontario
K0A 1A0
(613) 256-1483
Telex 053-3506

Nanotec, founded in 1974, produces and markets office communications products sold domestically and internationally by its own sales organization. Nanotec's technology is directed towards supplying products to realize a "paper-less" office. In 1980 the company started development of a range of standard products to replace the former emphasis on custom systems.

*Principal products and services*

— NCOM - automated message terminal
— INTRACOM - private branch message exchange
— NETCOM - private network store and forward switch

Annual sales: not disclosed
Senior executive:
Larry Schweizer
President

*For further information*

Ben Stevens
Vice-president

*Branch offices*

Montreal, Ottawa, Toronto, Calgary

# New Brunswick Telephone Co. Ltd.

**New Brunswick Telephone Co. Ltd.**

1 Brunswick Square
Saint John, New Brunswick
E2L 4K2
(506) 648-2340
TWX 610-221-4440

NBTel, a publicly owned utility is the primary supplier of telecommunications services to the people in the province of New Brunswick. Broadening its scope, NBTel has become actively involved in the marketing of both voice and data forms of communications to the business community promoting the automated office concept.

*Principal products and services*

— data network services
— Envoy 100 - electronic mail
— Wang W/P and OIS systems
— Cado minicomputers
— automated telephone answering services

*Related products and services*

— service bureau
— applications software
— computer terminals

Personnel: 2,900
Annual sales: $151 million in 1980
Senior executive:
Kenneth V. Cox
President and chief executive officer

*For further information*

W.H.B. Smith
Vice-president, operations
or
H.E. Doucet
Manager, operations staff

*Branch offices*

There are eight full service locations serving the residential and business community of New Brunswick

*Affiliated companies*

Teldata
Dobbin Surveys

# Nelma Data Corporation

**Nelma Data Corporation**

5170A Timberlea Blvd.
Mississauga, Ontario
L4W 2S5
(416) 624-0334
Telex 06-960121
Infotex 3029-500-1121

Nelma Data, incorporated in 1973, expects to start production of a range of office automation products in 1982. The firm has distributed the products of Ontel Corp. since 1975 and began offering Ontel-based word processing systems in 1979. Development of a proprietary series of office automation products was initiated in 1980, leading to the planned manufacturing operation. Nelma also produces custom software for communications, data processing and word processing use.

*Principal products and services*

— office information processing systems, standalone and shared resource
— intelligent terminals
— Infotex terminals
— personal computers

*Related products and services*

— exclusive Canadian distributor for Olivetti OPE DY211, DY311 and DY811 daisy wheel printers

Personnel: 70
Annual sales: $9.5 million in 1981
Senior executive:
Ed Newell
President

*For further information*

Ken Thomas
Vice-president, marketing

*Branch offices*

Toronto, Montreal, Ottawa, Calgary

**Norpak Ltd.**

10 Hearst Way
Kanata, Ontario
K2L 2P4
(613) 592-4164
Telex 053-4174

Norpak was founded in 1975 and is involved in the development, engineering, manufacture and marketing of a range of color graphics display terminals and associated digital electronic hardware. Norpak is a principal developer and major manufacturer of Telidon videotex system hardware, playing a substantial role in the continuing research and development of Telidon in Canada and throughout the world.

*Principal products and services*

— specialized graphics display devices (visual data processor, superVISION)
— Telidon products (teletext encoder system, information provider system, decoders)
— Apple II Telidon interface card

*Related products and services*

— Hemton group Telidon page creation services

Personnel: 250
Annual sales: $20 million in 1981
Senior executive:
Mark Norton
President

*For further information*

Ian Hembery
Vice-president, sales and marketing

Northern Technologies Inc.

**Northern Technologies Inc.**

85 Torbay Road
Markham, Ontario
L3R 1G7
(416) 475-9123
Telex 06-986179

Northern Technologies designs, develops and manufactures computer terminals and related accessories for Canadian and export markets. Northern Technologies, highly automated facility is geared to volume and quality production. Products are sold in Canada through Lanpar Ltd.

*Principal products and services*

— XT100 CRT terminal - VT100 compatible, AVO and printerport included
— XT52/APL terminal - VT52 compatible, with APL buffered line mode, editing and split screen
— XT51 terminal - low cost CRT basic functionality

*Related products and services*

— EIA cables
— customized connector cover for EIA cables
— EIA switchboxes and protocol converters
— custom key-caps

Annual sales: not disclosed
Senior executive:
Rene Pardo
President

*For further information*

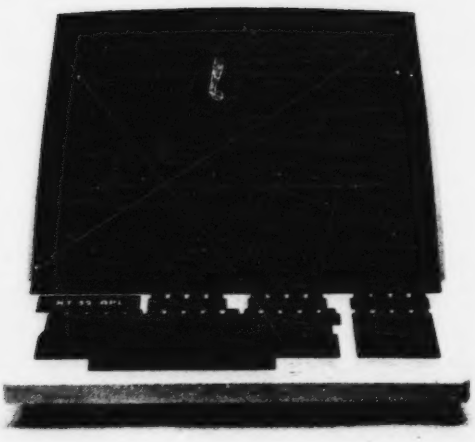
Robert G. Dickie
(416) 490-8763

*Branch offices*

Toronto, Montreal, Ottawa, Quebec, Burlington, Winnipeg, Vancouver, Calgary and Edmonton

*Affiliated companies*

Lanpar Limited



# Northern Telecom Canada Ltd.

**Northern Telecom Canada Ltd.**

304 The East Mall
Islington, Ontario
M9B 6E4
(416) 232-2000
Telex 06-984607
TWX 610-492-6311

Northern Telecom Canada Limited, the largest subsidiary of Northern Telecom Limited, is the principal manufacturer and supplier of telecommunications equipment in Canada. It operates 26 manufacturing plants in nine provinces. Its products are marketed in 70 countries through Northern Telecom International Limited. NTCL performs about 40 per cent of its research and development, the remainder being done by Bell-Northern Research Limited, Canada's largest industrial research organization.

*Principal products and services*

— business communications/subscriber apparatus
— central office switching
— transmission
— cable/outside plant

*Related products and services*

— data networks (to link 2 to 100 locations)
— key telephone systems - Vantage 12
— private branch exchanges (SL-1, SL-10, SL-100)
— voice/data terminals - Displayphone
— dialers, conferencing, speakers

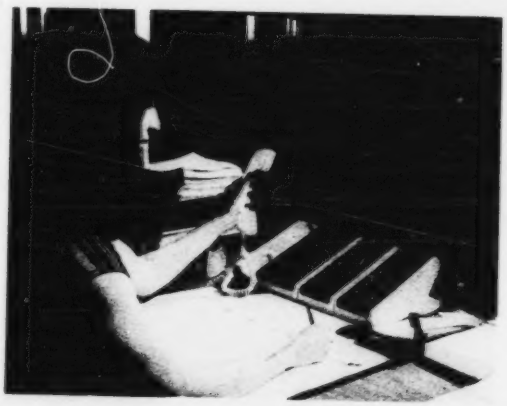
Personnel: 17,400
Annual sales: $1,335 million in 1981
Senior executive:
Basil A Beneteau
President

*For further information*

C. Denis Hall
Executive vice-president, marketing and technology

*Affiliated Companies:*

Northern Telecom Limited, Mississauga
Northern Telecom International Limited, Mississauga
Northern Telecom Inc., Nashville, Tenn.
Bell-Northern Research Ltd., Ottawa



Officesmiths Inc.

**Officesmiths Inc.**

331 Cooper Street
Ottawa, Ontario
K2P 0G5
(613) 235-6749

Officesmiths was organized in 1981 to provide microcomputer software products and business systems procedural tools designed to improve the productivity of professional workers in the modern office.

*Principal products and services*

— The Electronic File Cabinet is a set of software programs licensed to micro-hardware vendors which support UNIX System III.

*Related products and services*

— Business Systems/Manuals is a a set of consulting services, procedural tools and software for automating the resource intensive activities associated with the design, production, distribution and access of policy and procedure documentation.

Annual sales: not disclosed
Senior executive:
Glenn A. McInnes
President

**Office World,**
**Division of Atpro Enterprises Ltd.**

P.O. Box 898 Armdale
Halifax, Nova Scotia
B3L 4K5
(902) 453-1061

Office World was founded in 1976 to cater to the growing computer supply market. In recent years the company has expanded into a complete office products centre marketing business machines, business furnishings and interiors, word and data processing supplies as well as manufacturing custom office and EDP furniture.

*Principal products and services*

— office furniture
— business machines
— data processing supplies
— word processing supplies
— data processing furniture and cabinets

*Related products and services*

— manufacturing custom furniture
— computer peripherals

Personnel: 15
Annual sales: $2 million in 1982
Senior executive:
Lester E. Rafuse
President

*For further information*

Thomas A. Rose
Sales and marketing manager

*Branch offices*

Office World
P.O. Box 727
Sydney, Nova Scotia

*Affiliated companies*

Atpro Manufacturing
Stordata Systems

## Data communications interface equipment

**Omni Data Systems Inc.**

5 Denision Street
Markham, Ontario
L3R 1B5
(416) 495-1664

Incorporated in 1977, the company commenced operations under the name Canadian Digital Express as a repair depot for data communication products, sold and serviced by several Canadian telephone companies. The company began to make products to compliment those repaired this resulted in a major change in corporate direction. The by-products of the R&D into data communication-related products resulted in the birth of Omni Data Systems Inc. in early 1979. The company now provides a specialized range of low cost, flexible and comprehensive data communication interface equipment.

*Principal products and services*

— monitoring, switching and network management systems
— modems

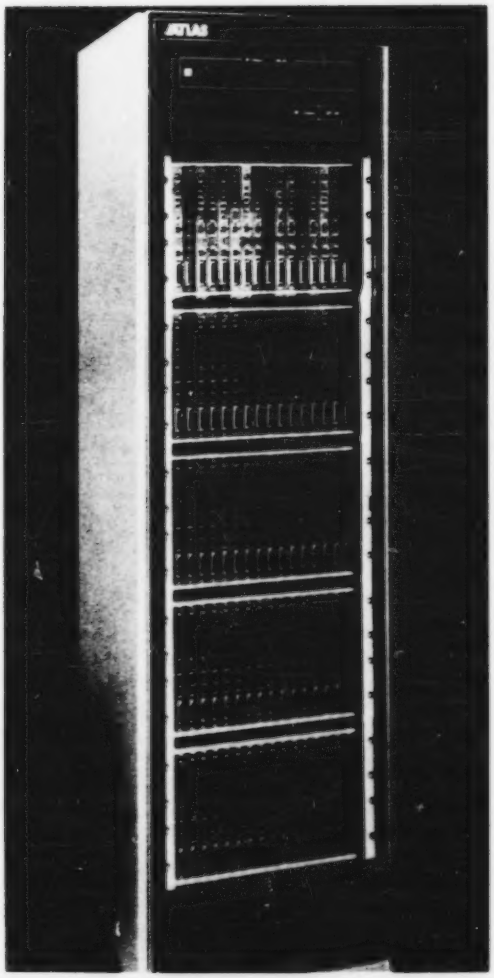
Personnel: 27
Annual sales: $2.4 million in 1981
Senior executive:
Jose Gonzalez
President

*For further information*

Betty Long
Vice-president, administration
or
Vince Catling
Vice-president, marketing

*Branch offices*

Montreal, Vancouver



# Philips Information Systems Ltd.

**Philips Information Systems Ltd.**

5250 Ferrier Street, Suite 704
Montreal, Quebec
H4P 1L4
(514) 341-6433
Telex 055-61888

Philips Information Systems Ltd. markets in Canada a wide range of advanced systems and products for the office. Through its participation in Micom Company it manufactures and markets word processing systems in Canada and through its affiliated companies distributes and markets word processors worldwide.

*Principal products and services*

— word processors
— electronic mail
— dictating equipment
— financial terminal systems
— automated teller machines
— telephone answering equipment

*Related products and services*

— custom application software
— Canada-wide service maintenance

Personnel: 1,350
Annual sales: $135 million in 1981
Senior executive:
Andrew H. Land
President and chairman

*For further information*

Steve Pozel
Vice-president marketing (416-292-5161)
or
Ashton Wylie
Manager, corporate planning (514-341-6433)

*Branch offices*

Montreal, Toronto, Burlington, Calgary, Edmonton, Vancouver

*Affiliated companies*

Micom Company (Montreal)
Philips Information Systems Inc. (Dallas)
Philips Electronics Ltd. (Toronto)
N.V. Philips Gloeilampenfabrieken (The Netherlands)

Prior Data Sciences Ltd.

**Prior Data Sciences Ltd.**

16 Credit Union Way, Suite 301
Ottawa, Ontario
K2H 8R6
(613) 820-7235
Telex 053-3356

Prior Data Sciences Ltd. specializes in real time systems engineering and software development. Prior concentrates in the fields of computer science and engineering with a wide range of applications experience including: communications, graphics, process control, distributed processing and data base, supervisory control and data acquisition (SCADA), computer aided dispatch and military systems.

*Principal products and services*

— voice and data communications systems
— network design
— graphics systems
— operating systems
— process control systems

*Related products and services*

— hardware OEM
— distributor for Oregon Pascal versions 1 and 2

Personnel: 35
Annual sales: $2 million in 1982
Senior executive:
Jack Prior
President

*For further information*

David Moss
Manager, software engineering services

*Branch offices*

214 King Street West, Suite 615
Toronto, Ontario M5H 1K4
(416) 596-1429

QL Systems Ltd.

**QL Systems Limited**

408-797 Princess Street
Kingston, Ontario
K7L 1G1
(613) 549-4611

QL Systems Limited, incorporated on 1973, developed the first Canadian commercial information retrieval system. QL currently operates over 60 data bases concerned with parliament and government, law, news, environment, energy, pollution, business, mining, communications, the Canadian North and related subjects. QL/SEARCH is used across Canada, the United States, Europe, New Zealand and Australia by researchers, governments, and by academic, legal, business, industrial and public libraries. QL also offers for purchase or lease, QL/TEXT, a text-editing system, QL/SEARCH, a full text information retrieval system, and QL/NEWS, a newspaper library system.

*Principal products and services*

— QL/SEARCH - information retrieval service
— QL/MAIL - electronic mail service
— QL/TEXT - text editing system
— QL/NEWS - newspaper library system

Personnel: 40
Annual sales: $1 million in 1981
Senior executive:
Hugh J. Lawford
President

*For further information*

Adrienne B. Herron
Marketing manager

*Branch offices*

2105 - 65 Queen Street, W.,
Toronto, Ontario
M5H 2M5
1018 - 112 Kent Street
Ottawa, Ontario
K1P 5P2

## Data processing consulting and applications packages

Quasar Systems Ltd.

**Quasar Systems Ltd.**

275 Slater Steet, 10th floor
Ottawa, Ontario
K1P 5H9
(613) 237-1440
Telex 053-3341

Quasar has established expertise in the development of custom software for energy, natural resource, distribution, manufacturing, financial and government applications. Quasar is a world leader in the creation and marketing of software products which increases the productivity of data processing resources and makes computer capability directly available to users.

*Principal products and services*

- QUIZ - a general report writer product
- QUICK - a data entry product
- QTP - a transaction processor
- IDT - a text processor software product
- $FLOW - a financial planning package

*Related products and services*

- EDP consultants and custom software development

Personnel: 347
Annual sales: $11 million in 1981
Senior executive:
Michael U. Potter
President

*For further information*

Ronald I. Nelson
Vice-president, marketing

*Branch offices*

Halifax, Montreal, Ottawa, Toronto, Winnipeg, Calgary, Edmonton, Vancouver, Victoria, San Francisco, Dallas, Los Angeles, Boston, Chicago, Atlanta, Philadelphia, Seattle, Tulsa, Greenboro and the United Kingdom.

**RBW Graphics**

1749 20th Street, East
Owen Sound, Ontario
N4K 5R2
(519) 376-8330
Telex 06-875745
TWX 610-354-9611

RBW was organized in 1853 as a newspaper and commercial printer. The company is a North American leader in the application of office automation systems to the production of books, manuals, directories and publications. RBW provides sales and service support throughout Canada and the eastern United States.

*Principal products and services*

— Electronic publishing systems used in the application and production of directories, rate manuals, price lists, parts books, publications, retail and wholesale catalogues
— data base creation and maintenance phototypesetting

*Related products and services*

— Web offset printing
— binding
— mailing

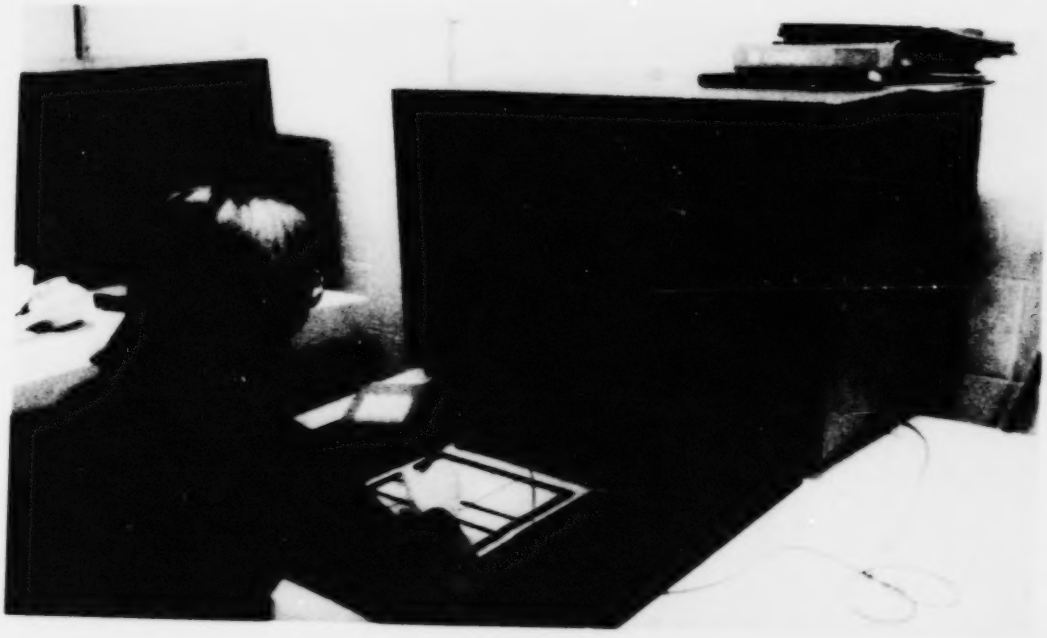
Personnel: 625
Annual sales: $43 million in 1981
Senior executive:
Ross A. Morrison
President

*For further information*

Kingsley Jackson
General manager
or
Jack Boyle
International marketing manager

*Branch offices*

Montreal, Ottawa, Toronto, Detroit



Sala Products Inc.

**Sala Products Inc.**

P.O. Box 8712
Ottawa, Ontario
K1G 3J1
(613) 737-5959

Sala was organized in 1980 to manufacture a powerful Z80-based microcomputer. The system is C/PM compatible. The 801 uses double-sided double-density floppy disks as well as Winchester 10 MB drives. The unit is sold directly to original equipment manufacturers as well as distributors.

*Principal products and services*

— video terminals (TTY, formatting entry level and APL)
— microcomputers (OEM systems and single board)

*Related products and services*

— modems
— multiplexers
— terminals

Personnel: 8
Annual sales: $500,000 in 1980
Senior executive:
Michel Sabourin

*For further information*

Frank Van Den Hoogan
General manager
or
John Jolicoeur
Technical support

**Saskatchewan Telecommunications**

2121 Saskatchewan Drive
Regina, Saskatchewan
S4P 3Y2
(306) 347-3737
TWX 610-721-1205

Owned by the Province of Saskatchewan, the company is the principal provider of communication services throughout the province. Member of the TransCanada Telephone System which facilitates sales extending beyond provincial boundaries.

*Principal products and services*

— voice facilities
— video facilities
— data transmission, including word processing networks
— small business systems and facilities

*Related products and services*

— terminals for all services including mobile services

Personel: 4,564
Annual revenues: $267 million in 1981
Senior executive:
A.L.M. Nelson
President

*For further information*

N. Stepan
Assistant vice-president, marketing
or
G.J. MacLennan
Manager, marketing major accounts

*Branch offices*

140 - 1st Avenue, North
Saskatoon, Saskatchewan

Siemens Electric Ltd.

**Siemens Electric Limited**

7300 Trans-Canada Highway
Pointe Claire, Quebec
H9R 4R6
(514) 695-7300
Telex 05-822778
TWX 610-422-1973

Member of the worldwide group of Siemens companies, one of the world's leading manufacturers of electric and electronic equipment and systems. Designs, manufactures, markets and services electrical and electronic products and systems for utilities, industry and science. In its Montreal facilities, Siemens manufactures the SB-192, EPABX and the new Venus residential small business telephone system.

*Principal products and services*

— EPXs and EPABXs - SD-192/232 MX, Venus
— key telephone systems
— Telex and Teletex terminals
— data switching systems

*Related products and services*

— telephone system peripherals
— ink jet and needle printers
— protocol converters
— facsimile and telephoto equipment

Personnel: 450
Annual sales: $87 million in 1981
Senior executive:
William B. Waite
President and chief executive officer

*For further information*

J. Kruppa
Vice-president, electronics

*Branch offices*

Toronto, Edmonton, Ottawa

*Affiliated companies*

Siemens AG
Munich, West Germany

**Systemhouse Ltd.**

99 Bank Street, 3rd Floor
Ottawa, Ontario
K1P 6B9
(613) 236-9734
Telex 053-4215

Systemhouse is Canada's largest computer software company providing consulting and systems development services and supporting a comprehensive range of packaged software products. The company offers a range of packaged software products for manufacturers and distributors, a comprehensive financial business system, automated mapping and cartography systems (AUTOMAP, AUTOCHART, AUTOPLOT), a computer-aided drafting and design system (CEADS/CADD) and a financial management and patient care system for the healthcare market. The company has application specialists supporting the areas of social services, education, building energy management, office automation and videotex.

*Principal products and services*

— consulting at all levels of management
— project management
— turnkey computer and office automation systems
— custom designed application software
— software packages for resale under licence

*Related products and services*

— systems consulting and development
— software products for distributors and manufacturers
— computer-aided drafting and design system

Personnel: 887
Annual sales: $30.5 million in 1981
Senior executive:
Rod Bryden
President and chairman

*For further information*

Brian Greenleaf
Vice-president, research and development
(613) 526-0670.

*Branch offices*

Vancouver, Calgary, Edmonton, Regina, Winnipeg, London, Toronto, Ottawa, Montreal, Fredericton Halifax, and San Diego, San Francisco, Los Angeles, Orange County, St. Louis, Cleveland, Chicago, Washington, New York, Boston

*Affiliated companies*

Systemhouse Inc.
Systemhouse International

Technetronic Inc.

## Office automation consulting and business graphics

**Technetronic Inc.**

325 Dalhousie Street, Suite 707
Ottawa, Ontario
K1N 7G2
(613) 563-4666
Telex 053-4477

Technetronic Inc. provides computer consulting services, systems engineering and customized software and hardware products to government and private sector clients in Canada and abroad. The services are directed towards assisting organizations who utilize either computer or computer networks in their business operation.

*Principal products and services*

— Copernicus 820 - a color graphics computer for performance measurement and capacity planning aid for large computers and networks

*Related products and services*

— systems engineering services
— computer consulting services
— business systems consulting services

Personnel: 20
Annual sales: $800,000 in 1981/82
Senior executive:
John Gray
President

*For further information*

Brett N. Martensen
Executive vice-president

# Telecompute Integrated Systems Inc.

**Telecompute Integrated Systems Inc.**

251 Spadina Avenue
Toronto, Ontario
M5T 2E2
(416) 363-9295

Telecompute Integrated Systems was founded in 1976 to design generalized microcomputer-based system software to run on many popular microcomputers. This system software has since developed into a variety of integrated products for financial planning, control systems and office automation. The smart system introduced by TIS is extremely user-friendly. TIS integrates this with different brands of microcomputers.

*Principal products and services*

— integrated word processing with on-line communication
— APL microprocessors
— financial and accounting systems

*Related products and services*

— TIS-APL and APL based application integrated with hardware

Personnel: 10
Annual sales: $700,000 in 1981
Senior executive:
Chand Mehta
President

*For further information*

Suren Mehta
Director of marketing

Toronto Word Processing Centre Ltd.

**Toronto Word Processing Centre Ltd.**

Canadian OCR Limited
55 University Avenue
Toronto, Ontario
M5J 2H7
(416) 364-8886

Canada's first word processing service bureau incorporated as Toronto Word Processing Centre Limited in December 1979. Now involved in training, consulting, conversion of diskettes, cards and cassettes. Distribution through Canadian OCR Limited agent for optical character readers.

*Principal products and services*

— word processing creation and editing
— word processing conversion
— word processing training
— OCR sales

Personnel: 5
Annual sales: $250,000 in 1981/82
Senior executive:
J.R. Duff
President

*Affiliated companies*

Canadian OCR Limited
Nation-Wide Business Centres (Toronto)

**Tran Communications Ltd.**

1320 Shawson Drive
Mississauga, Ontario
L4W 1C3
(416) 678-9504

Tran Communications was founded in 1973 to support sale of its parent company's product to Canadian telephone companies. The company now holds product centre responsibilities for corporate products including digital time-division multiplexers and limited-distance data sets. Products are designed, developed and manufactured in Canada for sale to Canadian telephone companies and exported for sale in the US and other markets through parent corporation sales organizations.

*Principal products and services*

— digital time-division multiplexers
— digital limited distance data sets

*Related products and services*

— digital network clocking systems
— packet switches
— circuit switches
— protocol converters

Personnel: 200
Annual sales: $18 million in 1981
Senior executive:
R.B. Peabody
Vice-president and general manager

*For further information*

John Andreasen
Sales manager

*Affiliated companies*

Tran Telecommunications Corp.
(US parent)

**Bringing people and the right technology together**

Trigon Systems Group Inc.

**Trigon Systems Group Inc.**

One Yonge Street, Suite 2205
Toronto, Ontario
M5E 1E5
(416) 365-9244

Trigon is the first Canadian consulting company dedicated to the convergence of computers, communications and the office. By working with both users and suppliers of technology, Trigon acts as a bridge, providing each group with critical assistance. The company has a comprehensive method for all aspects of system planning, design and implementation; a multidisciplinary professional team.

*Principal products and services*

— For users
- office system design, implementation
- strategic planning
- education briefings, seminars
- courses

— For suppliers:
- product planning and design
- marketing strategies
- product evaluation

*Related products and services*

— cost benefit analysis
— productivity research
— policy research

Personnel: 12
Annual sales: $900,000 in 1982
Senior executive:
Delma Henderson
Vice-president

*For further information*

Don Tapscott
Vice-president
or
Morley Greenberg
Vice-president

*Affiliated companies*

Trigon has 14 associated companies providing expertise in related areas.

**Ultracom Consulting Services Ltd.**

416-130 Albert Street
Ottawa, Ontario
K1P 5G4
(613) 237-2654

Ultracom is a Canadian-owned and operated data processing and management consulting firm providing full consulting and systems delivery for automated applications. The company's goal is to act as an interface between present and future automated technology and the client community.

*Principal products and services*

- applications computer system development
- management consulting
- technical consulting
- office automation consulting
- methodology for data modelling
- methodology for developing document and file indexes
- EDP training and education

Personnel: 36
Annual sales: $2.0 million in 1982
Senior executive:
R.F. Reardon
President

*For further information*

E.J. Greco
Manager, EDP consulting

**Intelligent terminal and minicomputer system software**

Versaterm Systems Ltd.

**Versaterm Systems Ltd.**

971 Richmond Road
Ottawa, Ontario
K2B 6R1
(613) 728-4641

Versaterm was established in 1977 to develop system software for intelligent terminals to permit them to be used in large and public networks with local formatting and editing, interactive conversations and local processing. In 1979, a relational data base management system was developed for microcomputers and the IBM Series/1 minicomputer. Versaterm also has a number of products used by the Canadian police community.

*Principal products and services*

— interactive data entry system for microprocessors
— relational DBMS for IBM Series/1 and 8080 microprocessor
— police records indexing system
— police fingerprint coding system
— police mobile terminal system

*Related products and services*

— custom assembler language programming
— development of emulators for I/Ts
— large network design and development

Personnel: 11
Annual sales: $500,000 in 1981
Senior executive:
Ron Meyer
President

*Branch offices*

2719 18th Street West
Saskatoon, Saskatchewan
S7M 4B1

VISIrecord Systems Canada Ltd.

**VISIrecord Systems Canada Ltd.**

71 Wingold Avenue
Toronto, Ontario
M6B 1P8
(416) 781-5521

VISIrecord manufactures specialized filing equipment and Datadesk furniture for computer, word processing, and micrographic work stations. Sales across Canada through company offices and authorized dealers.

*Principal products and services*

— furniture for computer terminals
— furniture for word processing
— furniture for micrographics
— ErgoDesk adjustable furniture

*Related products and services*

— storage devices for magnetic media and micrographics

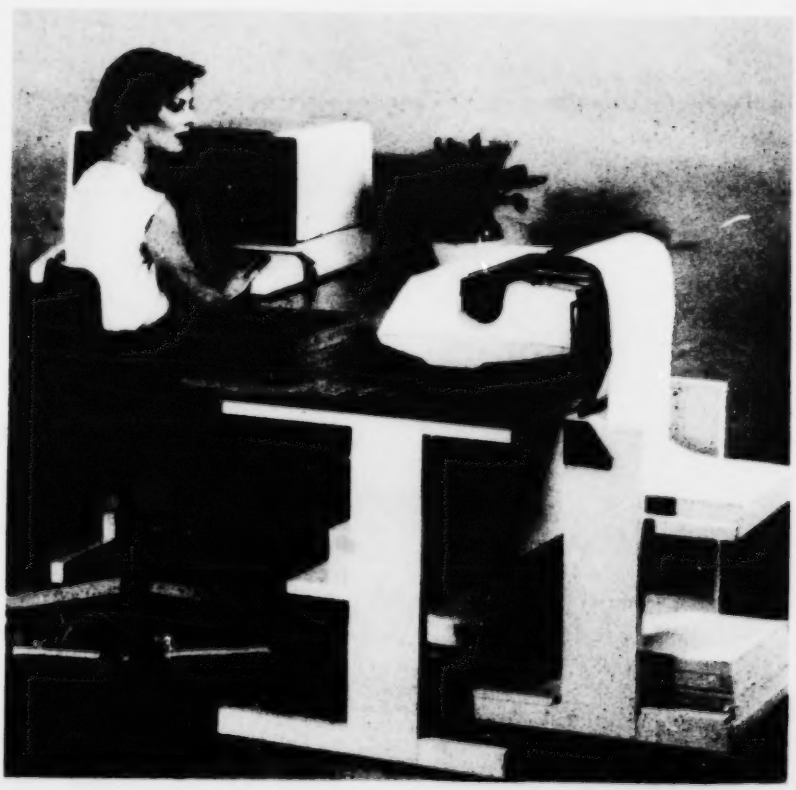
Personnel: 92
Annual sales: $3 million in 1981
Senior executive:
R.W. McDowell
Chairman

*For further information*

Kurt Schulz

*Branch offices*

Vancouver, Calgary, Hamilton, Ottawa, Montreal, Sherbrooke, Quebec



Westinghouse Canada Inc.

**Westinghouse Canada Inc.**

Electronic Systems Division
777 Walker's Line
Burlington, Ontario
L7R 4B3
(416) 528-8811
Telex 061-8409

Westinghouse Canada's Electronic Systems Div. was established in 1951 to handle military radar contracts and now does 80 per cent of its business in industrial/high grade commercial electronics. For the past 15 years, the division has designed and manufactured CRT-based displays, terminals and controllers for OEMs and large users. Primary emphasis is on synchronous polled systems involving complex protocols. The division also specializes in developing custom firmware and hardware modifications to meet customer specifications. Exports represent approximately 75 per cent of data communications and display sales of the division.

*Principal products and services*

— video terminals
  - asynchronous or synchronous, pollable
  - standalone or clustered
  - compatible with Honeywell
  - Univac, CDC, IBM IPARS, TTY, HDLC multiprocessor communications controllers
  - microprocessor-based terminal controller PCBs and standalone units

*Related products and services*

— custom terminal and controller software/hardware
— development and production

Personnel: 7,400 (all divisions)
Annual sales: $630 million in 1981
Senior executive:
F.H. Tyaack
President and chief executive officer

*For further information*

J.C. Wilder
Manager data communications and displays

*Affiliated companies*

WESCAN Europe Limited

**Xerox Canada Inc.**

703 Don Mills Road
Don Mills, Ontario
M3C 1S2
(416) 429-6750

Xerox Canada is in the information processing business. The company manufactures xerographic copiers and markets xerographic copiers and duplicators, computer-related equipment, facsimile transceivers, labelling and addressing machines, word processors, electronic typewriters and xeroradiographic products that print X-ray pictures on paper instead of film.

*Principal products and services*

— copiers
— duplicators
— word processors
— electronic typewriters
— facsimile equipment

*Related products and services*

— Xerox also publishes textbooks, reference works and other materials; reproduces manuscripts and dissertations from microfilm; and markets a variety of management training courses.

Personnel: 4,000
Annual sales: $585 million in 1981
Senior executive:
Ronald L. Mercer
President

*For further information*

Peter M. Brophey
Vice-president, corporate affairs

*Branch offices*

Halifax, Quebec City, Montreal, Ottawa, Toronto, Winnipeg, Calgary, Edmonton and Vancouver. Research Centre in Mississauga

*Affiliated companies*

Xerox Learning Systems
Ginn & Company Ltd. (publishers)
Toner Plant, Oakville

## Computer assisted instruction system with text-to-voice capability

# Zvook Corporation

**Zvook Corporation**

8 King Street East, Suite 205
Toronto, Ontario
M5C 1B5
(416) 368-2723

Incorporated in late 1980, Zvook Corporation is engaged in the design and market development of new products and systems directed at enhancing the learning process through computer assisted instruction. Applications for training office staff and management personnel in procedures and operation of office equipment.

*Principal products and services*

- instructional aid system
- hardware: microprocessor-based device reads modified printed text and enuciates textual content using natural sounding synthetic voice
- courseware: existing course material can be easily modified to incorporate audio feedback, much as a human instructor would, with words and phrases to coach the trainee through his course of study.

*Related products and services*

- consulting services available to adapt clients existing training materials to Zvook's instructional aid system

Annual sales: not disclosed
Senior executive:
Michael Nitefor
President